

**„CAROL DAVILA” UNIVERSITY OF MEDICINE
AND PHARMACY BUCHAREST**

**DOCTORAL SCHOOL
DOMAIN MEDICINE**



HABILITATION THESIS

CANDIDATE:

MUNTEANU OCTAVIAN

Senior Lecturer

”Carol Davila” University of Medicine and Pharmacy Bucharest

2025

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AND PHARMACY BUCHAREST**

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**EMBRYOLOGY AND ANATOMY – THE BASIS OF
INTERDISCIPLINARY MANAGEMENT IN
OBSTETRICS AND GYNECOLOGY**

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FOREWORD

Anatomy and Embryology are the fields of science where the student gets his first interaction with medicine, where he sees the structure of the body and understands the process through which nature fits the organs into the perfection of the human being. It is the subject by which a freshman student understands life through the dead in the dissection room and thereupon encounters death, from the very first year of medical school, in order to further honor life as a physician.

In Obstetrics and Gynecology, the accent is put towards the diagnosis and the personalized treatment of the patient, and therefore Anatomy and Embryology come to bring light in this process. In order to become a proper specialist in a surgical field, one has to master, above other concepts, Anatomy and Embryology.

Maternal-fetal medicine is an important subspecialty of Obstetrics. The correct management of patients with high-risk pregnancies requires extensive theoretical and practical training. In order to perform ultrasonography to the standards imposed by ISUOG (International Society of Ultrasound in Obstetrics and Gynecology) one must have a complete understanding of the intrauterine development of the embryo and subsequently fetus. Only in this way one can establish a correct and complete antenatal diagnosis. Also, in-depth knowledge of anatomical and physiological changes during pregnancy is the goal of a complete obstetrician.

Currently, most patients with complex gynecological pathologies have associated comorbidities, which require management by an interdisciplinary team. Hence, I consider that Embryology and Anatomy are the basis of successful interdisciplinary management in Obstetrics and Gynaecology.

In developing this habilitation thesis, I took into account the tradition but also the current trends of the Anatomy Discipline within the "Carol Davila" University of Medicine and Pharmacy in Bucharest where I was trained and where nowadays I continue to improve as a physician and a mentor.

1. SCIENTIFIC ACTIVITY AND ACHIEVEMENTS

1.1 DOCTORAL STUDIES

The topic of my PhD thesis was "Reevaluation of the criteria of establishing the diagnostic of cephalo-pelvic disproportion and of fetal extraction by Cesarean section", with Prof. Univ. Dr. Alexandru Theodor Ispas, MD, PhD, as coordinator, completed and defended in 2015. Cephalo-pelvic disproportion is an imbalance between the size of the fetal skull and maternal pelvis, the most frequent indication of fetal extraction by Cesarean section (1,2). However, it was demonstrated that worldwide there is a tendency for over-diagnosis of this obstetric pathology (1–5).

The thesis is structured in two parts: a general part and a special one. The general part consists of five chapters. The first chapter, entitled "Development of bony pelvis", and the second chapter, "Development of the skull", are dedicated to the stages of embryological development of the main components involved in cephalo-pelvic disproportion. The next two chapters, "Anatomy of the pelvis" and "Features of the newborn skull anatomy", present the latest knowledge on anatomy basin, basin types and characteristics of the newborn skull anatomy. The fifth chapter, entitled "Current state of knowledge in the diagnosis of cephalo-pelvic disproportion", presents the definition and classification of cephalo-pelvic disproportion, the main clinical and imagistic methods used in evaluating the risk of anatomical dystocia and the current state of knowledge related to diagnostic criteria.

The special part consists of 6 chapters and is dedicated to the personal study. The first two chapters present in detail the purpose, material and methods of study. The aim was to highlight the risk factors for cephalo-pelvic disproportion evaluating demographic, maternal and fetal data based largely on morphological characteristics. The third chapter presents the results of the study, and the fourth chapter, pertaining to discussions, compares the results with the ones of other specialists. Thus, we have shown that the variables required to calculate the risk of cephalo-pelvic disproportion are: maternal height, maternal weight, maternal age, weight gain during pregnancy, conjugata vera, fetal weight and cranium-perineum distance. Chapter V refers to the limits of the study.

The final chapter, which summarises the conclusions, presents the protocol developed for early risk assessment of anatomical dystocia, which allows a pregnant patient to be classified into three risk categories: low, moderate and increased.

In the year 2010 when I started my specialization in Obstetrics and Gynecology the main criteria in establishing the diagnosis of Cephalo-pelvic disproportion, or anatomical dystocia was determining the bi-parietal diameter (3,5). In my Doctoral thesis we have demonstrated that the bi-parietal diameter, that can be calculated during prenatal ultrasound, prior or the debut of the labor, is a non-efficient marker of anatomical dystocia, due to the moulding phenomenon of the fetal cranium that takes places when passing via the maternal pelvis (6–8).

Due to the results obtained in my Doctoral Thesis in 2015, the Romanian Society of Obstetrics and Gynecology changed the guideline of establishing the diagnostic of cephalo-pelvic disproportion and of fetal extraction by Cesarean section.

1.2 THE RESULTS OF MY SCIENTIFIC AND RESEARCH ACTIVITY

1.2.1 Research Projects and Grants

I have been grant/project director in 2 projects, one with European funding (Norway Grants) and the second with internal funding by “Carol Davila” University of Medicine and Pharmacy in the “Young Researchers Projects” Internal Competition 2013. I am currently responsible for the project entitled “Digitalization of the “Francisc I. Rainer” craniological collection”.

1.2.1.1 Director of international grant

- Director of Obstetrics-Gynecology within the project RO 19.10 “Improving health services in high-risk pregnancy, premature birth and hematological diseases” – contract 54224/04.12.2014, won through international competition with a funding of 1,800,000 euros, via Norwegian Grants 2009-2014.

The grant was used to purchase high-performance medical and laboratory equipment, to purchase reagents, and to renovate spaces dedicated to medical care. The project aimed to

screen pregnant women with risk factors for hereditary and acquired thrombophilias, in order to reduce the thrombotic risk in high-risk pregnancies. As a result of this project, currently, pregnant women admitted in the Department of Obstetrics and Gynecology Clinic of the University Emergency Hospital Bucharest could benefit from modern imaging exploration (ultrasound and videocolposcopy), cardiotocographic monitoring, arterial tension Holter and 24-hour ECG evaluation, as well as free molecular biology investigations to detect and confirm genetic risk factors for thrombophilias.

Another part of the funding was used to expand and modernize the Neonatology Department and the Neonatal Intensive Care Unit. The equipment and consumables purchased have brought a major benefit in the care of premature newborns and those hospitalized in the Neonatal Intensive Care Unit by increasing the quality and diversity of medical services for patients hospitalized in the Neonatal Intensive Care and Premature Neonatal Unit, reducing of the number of transfers (only 20 newborns were transferred to other health units after the implementation of the project) and of costly investigations or treatments, through better monitoring of patients which reduced the number of complications and deaths.

Only during the implementation period of the project in the Neonatology Clinical Department:

- 590 newborns were hospitalized in the Department for premature newborns.
- 375 newborns were hospitalized in the Neonatal Intensive Care Unit.

This project has contributed to the improvement of the performance indicators of the Neonatology Department, an example being the significant reduction of neonatal mortality; compared to 2015 when 29 neonatal deaths were registered (out of 3381 births) in 2016 this number was reduced to 16 (out of 2874 births), which represents a percentage reduction from 0.85% to 0.55%.

In the Department of Obstetrics-Gynecology the quality and diversity of medical services has increased:

- 2776 pregnant patients were scanned using the ultrasound machine bought.
- 3874 pregnant patients underwent cardiotocographic monitoring using the machine bought.
- 92 pregnant patients underwent colposcopic examination.
- 2256 pregnant patients underwent vital function monitoring.
- 36 pregnant patients underwent 24 hours Ambulatory Blood Pressure Monitoring.

- 32 pregnant patients received inhalation analgesia at delivery.
 - 25 patients with an in utero death fetus underwent hemostatic and evacuating curettage.
- Another objective of the project was screening for inherited and acquired thrombophilias. Thus, 1500 patients were enrolled and underwent hematologic and biochemical screening tests for the following genetic mutations:
- factor V Leiden G1691A (rs6025): positive 9.7%
 - factor V Leiden H1299R (haplotype R2, A4070G, rs1800595): positive 26.8%
 - prothrombin G20210A (rs1799963): positive 4.7%
 - methylenetetrahydrofolate reductase (MTHFR) C677T (rs1801133): positive 56.2%
 - methylenetetrahydrofolate reductase (MTHFR) A1298C (rs1801131): positive 57.1%
 - factor XIII V34L (G103T, rs5985): positive 42.6%
 - plasminogen activator inhibitor-1 – PAI-1 (4G/5G polymorphism): positive 77.4%
 - endothelial cell protein C receptor – EPCR (PROCR) G4600A (rs867186, S219G): positive 23.2%
 - EPCR (PROCR) C4678G (rs9574): positive 68.2%

Thus, this project allowed the prevention of maternal-fetal complications caused by inherited and acquired thrombophilias (spontaneous abortion /fetal death in utero, intrauterine growth restriction, pregnancy-induced hypertension/preeclampsia/eclampsia, premature delivery, hemorrhagic complications) by prophylactic anticoagulant and/or anti-platelet treatment.

Five hundred pregnant women were screened for congenital infections (TORCH profile) with significant fetal malformative potential. Therefore:

- 15 patients were diagnosed with acute toxoplasmosis
- 12 patients were diagnosed with acute Rubella infection
- 16 pregnant women were diagnosed with acute Cytomegalovirus infection

Thus, this project has contributed to the evidence of an increased seroprevalence of cytomegalovirus infection in Romania, which is why we consider it necessary to continue screening efforts. We also observed an increased seroprevalence of rubella in Romania, but insufficient to avoid primary infection in pregnancy, therefore vaccination campaigns should be intensified. Given the low seroprevalence of infection with *Toxoplasma gondii*, with a high

risk of primary infection in pregnancy, counseling patients on the necessary precautions, in parallel with pregnancy screening, are extremely important.

The project RO 19.10 “Improving health services in high-risk pregnancy, premature birth and hematological diseases” allowed us to perform multiple studies, after developing a database with all the characteristics of the pregnant patients who underwent biochemical screening tests for genetic mutations of thrombophilias.

The project RO 19.10 “Improving health services in high-risk pregnancy, premature birth and hematological diseases” allowed us to introduce new molecular diagnostic tests that are very useful in the diagnosis and monitoring of the evolution of hematological malignancies (detection and quantification of fusion genes; mutation screening; cytogenetic tests; increasing the number of markers tested by flow cytometry).

Many of the purchased equipment from the Molecular Biology Laboratory of the University Emergency Hospital Bucharest were used during the pandemic, in order to detect infection with the SARS COV 2 virus by the RT-PCR method.

Currently, the purchased equipment is used for screening hereditary and acquired thrombophilias and performing extended HPV genotyping.

1.2.1.2 Director of national grants

- Director of project no. 28334/04.11.2013 – “Evaluarea riscului de travaliu distocic in functie de nivelul expresiei relative a genelor ERAP2, LILRA3 si OXTr la nivel miometrial si in functie de nivelul proteinelor serice codificate de acestea” – project won within the "Young Researcher Projects" Internal Competition 2013 of Carol Davila" University of Medicine and Pharmacy, with a funding budget of 5000 euro.

With this funding we performed one of the first studies that assessed the risk of dystocic labor according to the relative mRNA levels of ERAP2, LILRA3 and OXTr genes present in the myometrium, and the levels of some of the serum proteins encoded by these genes. Therefore, dystocic labour may be predicted by determining the serum levels of proteins encoded by genes ERAP2, LILRA3 and OXTr. We also published our results in an ISI indexed journal without IF (9).

- Director of project “Digitalization of the “Francisc I. Rainer” craniological collection”

I am currently responsible for the project entitled “Digitalization of the “Francisc I. Rainer” craniological collection”, a collaboration between 3 prestigious institutions in terms of research and innovation in Romania: the Clinical Laboratory of Radiology-Medical Imaging within the University Emergency Hospital Bucharest; the Department of Paleoanthropology/Human Osteology of the “Francisc I. Rainer” Institute of Anthropology, within the Romanian Academy and the Discipline of Anatomy, Department II Preclinical Morphological Sciences within the Faculty of Medicine of the “Carol Davila” University of Medicine and Pharmacy. The project aims to digitize the “Francisc I. Rainer” craniological collection by inventorying and developing the largest database in the world (approximately 6500 human skulls from the interwar period) in DICOM (Digital Imaging and Communications in Medicine) format. The project is ongoing and approximately 600 crania have been scanned so far.

Partial results have been communicated in December 2024 at 8th edition of International Medical Students Congress of Bucharest and the research „The incidence and variability of the persistent metopic suture in a population of crania from the inter-war population” (Maria Voinea, Andra Baloiu, **Octavian Munteanu**) received the second prize in the Fundamental Section of the congress.

1.2.1.3 Member in team of a national grant

1. Member in the national grant DT 61 – “Contributii la optimizarea procesului de insertie pe piata muncii a absolventilor din domeniul sanatatii, utilizand mijloacele disciplinelor sportive de predare”, won through national competition.
2. Member in the national grant no.18/10.02.2014 “Down is swimming up”, carried out by “Down Bucuresti” Association in partnership with Attack Team, Bucharest. The project was part of the program “Adopta un proiect” supported and financed by ING Bank in the amount of 5000 euros, won through national competition.
3. Member in the national grant no.3/2016 “Candid” carried out by “Down Bucuresti” Association in partnership with Attack Team, Bucharest. The project was part of the program “Adopta un proiect” supported and financed by ING Bank in the amount of 10000 euros, won through national competition in December 2015.

4. Member in the national grant “Consortiu multidisciplinar pentru sustinerea competentelor de cercetare in diagnosticarea, tratarea si identificarea de factori predictivi ai afectiunilor maligne ginecologice” – Acronim ONCOGIN, cod proiect PN-III-P1-1.2-PCCDI2017-0833, duration: 05.04.2018-30.09.2020.

1.2.2 Clinical studies

I have participated in numerous clinical studies. Therefore, I have vast experience in conducting these types of analysis.

1.2.2.1 Subinvestigator in international studies

1. “A randomized double blind, placebo and active-controlled, parallel group study to evaluate the analgesic efficacy and safety of Dexketoprofen Trometamol and Tramadol Hydrochloride oral fixed combination on moderate to severe acute pain following abdominal hysterectomy”DEX-TRA-04 – MENARINI & PAREXEL Study team August 2013 – July 2014.
2. “A Phase 3B, multi-center, randomized, doble-blind study of hydroxiprogesterone caproate injection, 250 mg/ml, versus vehicle for the prevention of preterm birth in women with a previous singleton spontaneous preterm delivery”, protocol no. 17P-ES-003, sponsor Lumara Health.
3. “Studiul clinic multicentric, randomizat, pe grupuri paralele, controlat dublu orb, pentru evaluarea eficacitatii si sigurantei unui medicament pe baza de plante continand tinctura, radacini de leustean si de rozmarin, in comparatie cu fosfomicina trometamol pentru infectii de tract urinar joase acute la femei”, CRO study code ACC 1869, eudraCT–no: 2013-004529-99, sponsor Bionorica SE.CRO – ACCOVION SRL.
4. “Makena” - protocol no. 17P-ES-003 site: University Emergency Hospital in Bucharest.
5. “Un studiu de fază III, randomizat, controlat cu placebo, în regim dublu-orb, cu durata de 12 săptămâni, urmat de o perioadă de tratament în regim deschis cu un singur braț, pentru a evalua eficacitatea și siguranța fezolinetantului la femei care suferă de simptome vasomotorii (bufeuri) moderate până la severe, asociate menopauzei – protocol no. 2693-CL-0301 – sponsor Astellas Pharma Global Development.

6. “Un studiu clinic de fază III, randomizat, dublu-orb, controlat cu placebo, de investigare a siguranței pe termen lung a fezolinetantului la femeile cu simptome vasomotorii (bufeuri) asociate cu menopauza” – protocol no. 2693-CL-0304 – sponsor Astellas Pharma Global Development.
7. “Un studiu clinic de fază III, pivot, randomizat, in regim deschis, cu grupuri paralele, cu privire la eficacitatea contraceptive, siguranta si tolerabilitatea LVDS (sistem cu cedare vaginala a levorgestrelului) pe durata a 9 cicluri, in comparatie cu Desogestrel” - sponsor SC Scope International – study in progress that began in 2023.
8. Subinvestigator in the non-interventional, observational DLS-BB044-V.1 “Studiu prospectiv pentru colectarea de probe biologice/biospecimene umane pentru viitoare cercetari stiintifice si medicale” 80246/02.12.2024 Sponsor Discovery Life Sciences LLC.

1.2.2.2 Principal investigator in national clinical studies

1. “Studiu prospectiv de caracterizare a profilului pacientei diagnosticate cu polifibromatoza uterina care efectueaza embolizarea arterelor uterine” - site: University Emergency Hospital in Bucharest.
2. Coordinator of Department of Obstetrics and Gynecology III within the University Emergency Hospital Bucharest in the study “Studiu sero-epidemiologic de prevalenta a markeriilor cu virus hepatitic B la gravide”, conducted between 01.07.16 - 30.10.2016, by the Department of Epidemiological Surveillance and Control of Transmissible Diseases of the National Directorate of Public Health in Romania.
3. “Studiu retrospectiv privind implicatiile anastomozelor arterio-venoase in patologia ginecologica” - site: University Emergency Hospital in Bucharest.

1.2.2.3 Subinvestigator in national clinical studies

1. “Studiu prospectiv randomizat privind eficacitatea si siguranta tratamentului cu Esberitox N in infectia genitla cu Human Papiloma Virus”, sponsor Planta Med.
2. “Studiul clinic national multicentric, prospectiv, randomizat, neinterventional, privind eficacitatea si siguranta Femicur la femei cu infertilitate prin lipsa ovulatiei (WHO clasa 3)”, sponsor Planta Med.

3. “Metode de diagnostic si tratament complex in cancerile genito-mamare” - site: University Emergency Hospital in Bucharest.
4. “Diagnostic tratament si factori predictivi in cancerul de san” - site: University Emergency Hospital in Bucharest.
5. “Program de screening standardizat pentru femeile din penitenciare” - site: University Emergency Hospital in Bucharest.

1.2.3 Summary of scientific publications and scientometric indicators

1.2.3.1 Books and Chapters in Textbooks

I have published different monographs and chapters in important textbooks (in Romanian) and I have also participated in the translation into Romanian of the most prestigious international textbooks, as follows:

1.2.3.1.1. Specialized monographs – co-author:

1. „Anatomy The Limbs – Practical sessions ” - G. Lupu, F. Terteliu, E. Tarta, I. Bulescu, **O. Munteanu** “Carol Davila “ University Press, Bucharest 2010, ISBN: 978-973-708-458-3.
2. „Anatomy The Trunk Wall and the Limbs – Practical sessions ”- G. Lupu, E. Tarta, F. Terteliu, B. Diaconescu, I. Bulescu, **O. Munteanu** “Carol Davila “ University Press, Bucharest 2011, ISBN 978-973-708-603-7.

1.2.3.1.2. Co-author of chapters in specialty books:

1. Co-author of one chapter in „Biologie – Teste admitere – Facultatea de Medicina „Carol Davila”, Bucuresti, 2012 ”– “Sistemul reproducator”, Editura Universitara „Carol Davila” Bucuresti, 2012, ISBN :978-973-708-608-2.
2. Co-author of one chapter in „Osteoporoza in menopauza editia a II a revizuita si adaugita” – authors: Catalin Cirstoiu, Monica Cirstoiu, Anca Popescu, Dan Popescu, Ruxandra Sinescu, **Octavian Munteanu**, colaborator Alexandra Zlatianu – “Capitolul 2 – Structura tesutului osos”, Editura Universitara „Carol Davila” Bucuresti, 2013, ISBN: 978-973-708-663-1.
3. Co-author of one chapter in „Manual de pregatire pentru admiterea in invatamantul superior medical Biologie 2013, Bucuresti, 2013” - “Miscarea”, Editura Universitara „Carol Davila” Bucuresti, 2013, ISBN: 978-973-708-672-3.

4. Author of one chapter in „Manual de pregătire pentru admitere în învățământul superior medical Biologie 2014, București, 2014” – “Aparatul genital” - Editura Universitară „Carol Davila” București, 2014, ISBN: 978-973-708-749-2.
5. Author of one chapter in „Manual de pregătire pentru admitere în învățământul superior medical Biologie 2015”, București, 2015” — “Sistemul reproducător” - Editura Universitară „Carol Davila” București, 2015, ISBN: 978-973-708-825-3.
6. Author of two chapters: Chapter I – „Dezvoltarea aparatului genital feminin”, Chapter III – „Anatomia aparatului genital feminin”, Co-author of 7 chapters: Chapter IV – „Malformațiile tractului genital feminin”, Chapter V – „Intersexualitatea”, Chapter VI – „Examinarea ginecologică în pediatrie”, Chapter VII – „Investigațiile paraclinice în Ginecologia Pediatrică”, Chapter IX – „Endometrioza la adolescente”, Chapter XI – „Sexualitatea la adolescente”, Chapter XIII – „Contracepția la adolescente” în „Tratat de Ginecologie Pediatrică”, Editura Universitară „Carol Davila” București, 2015, ISBN: 978-973-708-637-2.
7. Author of one chapter in „Tratat de patologie mamară în copilărie și adolescență” Editura Universitară „Carol Davila” București, 2015, ISBN: 978-973-708-832-1.
8. Author of one chapter in - „Manual de pregătire pentru admitere în învățământul superior medical Biologie 2016” București, 2016”– „Sistemul nervos” - Editura Universitară „Carol Davila” București, 2016, ISBN: 978-973-708-866-6.
9. Co-author of Chapter I in „Embriologia gestației multiple” Authors: Monica Cirstoiu, **Octavian Munteanu**, Ioan Bulescu, in the national textbook „Sarcina Multiplă”, Editura Medicală Universitară Craiova, ISBN : 978-973-106-258-7.
10. Author of one chapter in „Manual de pregătire pentru admitere în învățământul superior medical Biologie 2017 București, 2017” – “Analizatorii” - Editura Universitară „Carol Davila” București, 2017, ISBN: 978-973-708-951-9.
11. Author of Chapter 8 – „Tratamentul intervențional la paciențele cu polifibromatoză uterină” în „Actualități în Obstetrică-Ginecologie și Neonatologie”, coordinatori: C Mehedintu, S Vladareanu, editura Universitară „Carol Davila” București, 2016, ISBN: 978-973-708-937-3.
12. Co-author of Chapter 2 – „Mecanisme de apariție a durerii în endometrioza” în „Endometrioza” coordinatori: C Berceanu, E Bratila, MM Cirstoiu, C Mehedintu, editura Medicală Universitară Craiova, Craiova, 2018, ISBN – 978-973-106-296-9.

13. Co-author of 3 chapters - Chapter 1 „Notiuni de Anatomie si embriologie ale colului uterin”, pg 13-30, authors: **Octavian Munteanu**, Maria Neamtu, Monica Cirstoiu, Chapter 2 – „Cancerul de col uterin – epidemiologie”, pg 31-44, authors: **Octavian Munteanu**, Luciana Arsene, Diana Voicu, Nicolae Suciu, Monica Cirstoiu, si Chapter 18 „Prezervarea fertilitatii la pacientele cu cancer de col uterin” pg 287 – 296, authors: Raluca Tulin, **Octavian Munteanu**, Monica Cirstoiu, in „Tratat de patologie neoplazica si preneoplazica a colului uterin” Nicolae Suciu, Monica Cirstoiu, Nicolae Bacalbasa, Editura Academiei Romane, Bucharest, 2018, ISBN 978-973-27-2934-2.
14. Co-author of Chapter 1 – „Anatomie si histologia tractului genital inferior”, pg 25-55, authors: Monica Cirstoiu, Maria Sajin, **Octavian Munteanu**, Adrian Dumitru in „Tratat de patologie a tractului genital inferior”, coordinators: Liana Ples, Anca Daniela Stanescu, Editura Universitara “Carol Davila” Bucuresti, 2018, ISBN 978-606-011-048-4.
15. Co-author of Chapter 1 – „Anatomia ovarelor”, pg 15-26, authors: Monica Cirstoiu, **Octavian Munteanu**, Maria Neamtu in „Neoplasmul ovarian in sarcina”, Monica Mihaela Cirstoiu, Nicolae Bacalbasa, Iulian Brezean, Nicolae Suciu, Editura Academiei Romane, Bucharest, 2019, ISBN 978-973-27-3080-5.
16. Author of one chapter in „Teste de Biologie pentru admitere in invatamantul universitar medical 2021 Bucuresti, 2021” – “Sistemul nervos” - Editura Universitara „Carol Davila” Bucuresti, 2021, ISBN: 978-606-011-186-3.
17. Co-author of Chapter 3 – „Anatomia organelor genitale externe”, pg 81-113, authors: Monica Cirstoiu, **Octavian Munteanu**, Maria Narcisa Neamtu in „Tratat de infectii cu transmitere sexuala”, Florica Sandu si Mihai Cristian Dumitrascu, Editura Editura Universitara „Carol Davila” Bucuresti, 2022, ISBN: 978-606-011-229-7.
18. Author of one chapter in - „Teste de Biologie pentru admitere in invatamantul universitar medical 2023”, Bucuresti, 2023” – “Sistemul nervos” - Editura Universitara „Carol Davila” Bucuresti, 2021, ISBN: 978-606-011-257-0.
19. Co-author of two chapters - Chapter I “Anatomia chirurgicala a aparatului genital feminin”, pg. 3-13, authors: Florin Filipoiu, **Octavian Munteanu**, Maria Narcisa and Chapter XV “Ginecologia pediatrica”, pg: 341-348, authors: Monica Cirstoiu, **Octavian Munteanu**, Maria Narcisa Neamtu in „Tratat de Obstetrica si Ginecologie”, sub redactia Gheorghe Peltecu, Editura Medicala, Bucharest, 2024, ISBN: 978-973-39-0956-9.

1.2.3.1.3. Translation of specialized textbooks

I participated in the translation into Romanian of the most prestigious international textbooks on Obstetrics, Gynecology, Obstetrical Ultrasonography, Emergencies in Obstetrics and Gynecology, Infertility, Embryology and Anatomy, as it follows:

1. „Williams Ginecologie” – author Barbara Hoffman - Chapter 19 „Evaluarea cuplului infertil”, IIInd Edition, Hipocrate Publishing House, Bucharest, 2015, ISBN 978-973-88372-5-6.
2. „Williams Obstetrica editia a 24 – a in limba romana" - Chapter 7 "Embriogeneza si dezvoltarea morfologica fetala in tratatul international", Prof. Dr. Monica Cirstoiu, **Octavian Munteanu**, Ioan Bulescu, Alexandra Zlatianu ISBN : 978-973-88372-7-0.
3. " Calllen Ultrasonografie in Obstetrica si Ginecologie, editia a 6-a M Norton, L, Scoutt, V Feldstein – coordonator editie in limba romana R Vladareanu" – Chapter "Anexa A - Masuratori frecvent utilizate pentru estimarea varstei gestationale si a biometriei fetale" Hipocrate Publishing House, 2017, Bucharest, ISBN – 978-973-88372-8-7.
4. "Urgente in Obstetrica si Ginecologie, editia a 2-a, S Doumouchsis si S Arulbkumaran, editori in limba romana E Bratila, M Cirstoiu, M Mitran" - Chapter 13 "Complicatii postoperatorii” Hipocrate Publishing House, 2018, Bucharest, ISBN – 978-606-94575-6-6.
5. “Infertilitatea - abordari globale si terapeutice” – two chapters: "Cap. 29 - Cand este necesara consilierea cuplului in scopul opririi eforturilor procreerii prin metode clasice de reproducere asistata?" and “Cap. 33 – Conservarea fertilitatii feminine”, Hipocrate Publishing House, Bucharest, 2019, ISBN 978-606-94576-1-0.
6. “Sobotta – atlas de anatomie a omului: capul, gatul si neuroanatomie” – coordinator: Prof. Univ. Dr. Filipoiu Florin, Callisto Publishing House, 2022, Bucharest, ISBN 978-606-8043-53-1.
7. “Sobotta – atlas de anatomie a omului: Anatomie generala si sistemul musculoscheletic” – coordinator: Prof. Univ. Dr. Filipoiu Florin, Callisto Publishing House, 2022, Bucharest, ISBN 978-606-8043-51-7.
8. “Sobotta – atlas de anatomie a omului: Organele interne” – coordinator: Prof. Univ. Dr. Filipoiu Florin, Callisto Publishing House, 2022, Bucharest, ISBN 978-606-8043-52-4.

1.2.3.2 Research papers published as abstracts

- Papers published as abstract in volumes of international conferences indexed in ISI Web of Science Core Collection: 70.
- Papers published as abstract in volumes of national scientific conferences recognized by CNCSIS: 327.

1.2.3.3 Full text articles

- Full-text articles published in journals indexed by ISI Web of Science Core Collection with IF:
 - as main author: 31
 - co-author: 20
- Full-text articles published in journals indexed by ISI Web of Science Core Collection without IF:
 - as main author: 2
 - co-author: 0
- Full-text articles published in journals indexed by ISI Web of Science Core Collection without IF - conference proceedings type:
 - as main author: 18
 - co-author: 13
- Full-text articles published in journals indexed by PubMed:
 - as main author: 10
 - co-author: 18
- Full-text articles published in journals indexed by other international scientific databases (BDI):
 - as main author: 57
 - co-author: 24
- Full-text articles published in journals recognized by CNCSIS:
 - as main author: 13
 - co-author: 11

1.2.3.4 Scientometric indices

The Hirsch Index in the main databases is as follows:

- Web of Science Core Collection:
 - H-index = 10
 - Times cited: 323
- Research Gate:
 - H-index = 14
 - Times cited: 663
- Google academic:
 - H-index = 17
 - Times cited: 943

1.2.4 Awards and prizes

The results of numerous studies I conducted were presented at national and international conferences. The following researches were awarded:

1. **Diploma of Merit** within the 4th Edition "Bebe Sanatos", September 4-8, Bucharest, Romania.
2. Award for **the best poster** at the XVIth National Congress of Obstetrics and Gynecology, 24-25.10.2014, Cluj-Napoca, Romania for the paper „Rolul determinarii factorilor angiogenici placentari in evaluarea periodica a riscului de preeclampsie” authors: Monica Cirstoiu, Diana Secara, Elvira Bratila, Oana Bodean, **Octavian Munteanu**.
3. Award for **the best oral presentation** of the Session A Obstetrics-Gynecology at the XVIth Congress of the Romanian Society of Anatomy, May 7-9, Bucharest, Romania, for the paper "Actualitati in clasificarea și terminologia malformatiilor tractului genital feminine" - authors: **Octavian Munteanu**, Alexandra Zlatianu, Luiza Radulescu, Oana Maria Bodean, Diana Voicu, Cristina Covalciuc, Luminita Grosu, Monica Cirstoiu.
4. Award for **the best poster** in Poster Session IV of the XVIth Congress of the Romanian Society of Anatomy, May 7-9, Bucharest, Romania, for the paper "Morphologic study of cephalothoracopagus conjoined twins. A case report" - authors: Ioan Bulescu, Florin Filipoiu, Monica Cirstoiu, **Octavian Munteanu**.

5. **Second Prize** in Session B Obstetrics-Gynecology at the XVIth Congress of the Romanian Society of Anatomy, May 7-9, Bucharest, Romania, for the paper “Studiul morfologic al unui fat cu higroma chistica cervicala – prezentare de caz”- authors: **Octavian Munteanu**, Florin Filipoiu, Cristina Moraru, Florina Badea, Lucia Calina Savu, Ioan Bulescu, Monica Cirstoiu
6. **Third Prize** in the IVth Session of posters at the XVI th Congress of the Romanian Society of Anatomy, May 7-9, Bucharest, Romania, for the paper “Malformatii congenitale neonatale” - authors: Luiza Radulescu, **Octavian Munteanu**, Ana Maria Rosoga, Oana Bodean, Monica Cirstoiu.
7. **Honorable Mention** in the Poster Session of Forum Ginecologia.ro 2nd Edition, May 22-23, 2015, for the paper “Caz rar de sarcina abdominala avansata” - authors: **Octavian Munteanu**, Tufan Cicerone, Bohaltea Roxana, Oana Bodean, Voicu Diana, Monica Cirstoiu.
8. Award for **the best poster** within the 9th National Congress of Endocrinologic Gynecology, 17-19.09.2015, Bucharest, Romania for the paper „Metode de screening in patologia mamara: ecografia, mamografia, RMN” - authors: Diana Voicu, **Octavian Munteanu**, Oana Bodean, Monica Cirstoiu.
9. **Second Prize** in the Poster section of the National Congress for Students and Young Doctors, 19 th edition, December 10-13, 2015, Bucharest, Romania for the paper „Managmentul interventional al pacientei cu sarcina tubara necomplicata” - authors: Ioana Paltineanu, Madalina Prioteasa and coordinators: Monica Cirstoiu, **Octavian Munteanu**.
10. **First Prize** in the Poster session of the 4thth National Congress of the Romanian Menopause Medical Association, 26-28.05.2016, Sinaia, Romania for the paper "Studiu observational privind metodele contraceptive la femeile de peste 40 de ani" - authors: Bodean O, **Munteanu O.**, Voicu D, Cirstoiu M..
11. **Special prize** in the competition organized at the Emergency Hospital “Sfantul Pantelimon”, within the project POSDRU/179/3.2/S/151626.
12. **First Prize** - Diploma of Excellence at the Congress of the "Carol Davila" University of Medicine and Pharmacy "Carol Davila" Bucharest, Parliament Palace, 2-4 June 2016, 4th edition - Young Researcher Award in Surgical Specialties session for "Uterine artery embolization - the most effective method of interventional treatment of metrorrhagia in patients with multiple uterine fibroids", authors: **Octavian Munteanu**, Bogdan Dorobat,

Gabriel Radu, Roxana Bohaltea, Diana Voicu, Oana Bodean, Ruxandra Albu, Monica Cirstoiu.

13. **Honorable Mention** within the Congress of the "Carol Davila" University of Medicine and Pharmacy "Carol Davila" Bucharest, Parliament Palace, June 2-4, 2016, 4th edition - Young Researcher in Surgical Specialties Award for the paper "True umbilical knot - the experience of the Department of Obstetrics and Gynecology of University Emergency Hospital Bucharest", authors: Gabriel Radu, Roxana Bohaltea, **Octavian Munteanu**, Diana Voicu, Oana Bodean, Nicoleta Pruna, Irina Horhoianu, Monica Cirstoiu.
14. **Second Prize** at the 17th edition of Medicalis-International Congress for Medical Students and Young Health Professionals for the paper "Managementul unei paciente cu o malformație arteriovenoasă intrauterină rară", authors Irina Stavarache, Alina Burcuta and coordinators: **Octavian Munteanu** and Monica Cirstoiu.
15. **Second Prize** at the Poster Session "Actualități în obstetrică și ginecologie" - Forum Ginecologia.ro Conference, May 20-21, 2016, Bucharest, Romania for the paper entitled - "Tratamentul vaginozei in sarcina" - authors: Oana Bodean, **Octavian Munteanu**, Diana Voicu, Monica Cirstoiu.
16. **Third Prize** in oral communication session II at the 18th National Congress of the Romanian Society of Anatomy, Iasi, Romania, May 11-13, 2017, for the paper "Hernie diafragmatica congenitala" - authors: Maria Neamtu, Irina Stavarache, Alina Burcuta, Sorin Vasilescu, Florin Filipoiu, Monica Cirstoiu, **Octavian Munteanu**.
17. **Second Prize** in the 2nd oral communication session, within the XVIIIth National Congress of the Romanian Society of Anatomy, Iasi, Romania, May 11-13, 2017, for the paper "Hernia fiziologica – proiectie holografica" - authors Bogu CV, Serbanescu AA, **Munteanu O**.
18. **Honorable Mention** in the Poster session, within the Forum Ginecologia congress, March 24-25, 2017, Bucharest, Romania, for the paper "Impactul malformatiilor tractului genital asupra prognosticului reproductiv" - authors: **Octavian Munteanu**, Alexandra Munteanu, Luiza Radulescu, Oana Bodean, Diana Voicu, Luciana Arsene, Gabriel Radu, Roxana Bohaltea, Monica Cirstoiu.
19. **First Prize**, Oral Communication Session I, at the XVIIIth National Congress of the Romanian Society of Anatomy, Iasi, Romania, May 11-13, 2017, for the paper "Repere anatomice utile

in chirurgia fosei craniene mijlocii si a sinusului cavernos" - authors: Cristina Covalciuc, Luminita Grosu, **Octavian Munteanu**.

20. **Honorable Mention** in Poster Session, within the National Conference of the Romanian Association for the Study of Pain, October 26-27, 2017, Bucharest, Romania, for the paper "Mecanisme de aparitie a durerii postoperatorii la pacientele cu endometrioza" - authors: **Octavian Munteanu**, Alexandra Munteanu, Diana Voicu, Oana Bodean, Luciana Arsene, Maria Neamtu, Monica Cirstoiu.
21. **Third Prize** in the Electronic Poster Session, within the 4th National Congress on HPV and the First Congress of the Society of Endometriosis and Eastern European Infertility, June 14-16, 2018, for the paper "Particularitati al infectiei HPV la femei in menopauza" - authors: **Octavian Munteanu**, Luciana Arsene, Ona Bodean, Diana Voicu, Florina Paulet, Ana Uzunov, Costin Berceanu, Monica Cirstoiu.
22. **Third Prize** within the Poster Session of the XIVth National Congress of the Romanian Society of Urogynecology, September 7-9, 2017, Eforie Nord, Romania, for the paper "Chistul parauretral in sarcina" - authors: Oana Bodean, **Octavian Munteanu**, Diana Voicu, Luciana Arsene, Elvira Bratila, Costin Berceanu, Monica Cirstoiu.
23. **First Prize** in the Poster Session, within the XIXth Congress of the Romanian Society of Ultrasonography in Obstetrics and Gynecology, September 23-25, 2021, Sibiu, Romania, for the paper "An intriguing differential diagnosis of a neural tube defect" - authors: Roxana Bohiltea, Mihai Bianca, **Octavian Munteanu**, Ducu Ionita, Adrian Dumitru.
24. **First Prize** in the B Session of oral presentations, within the XXIIth National Congress of the Romanian Society of Anatomy with international participation, May 12-14, 2022, Brasov, Romania, for the paper "Transnasal endoscopic approach of selle and parasellar tumors" - authors: Alexandru Mocanu, Miruna Matei, Olteanu Maria, Bogdan Mocanu, **Octavian Munteanu**, Sergiu Stoica.
25. **Third Prize** in the B Session of oral presentations, within the XXIIth National Congress of the Romanian Society of Anatomy with international participation, May 12-14, 2022, Brasov, Romania, for the paper "The embryology of the human palpebral apparatus - a macroscopic approach" - authors: Petrescu Ioan Andrei, Andra Baloiu, Filipoiu Florin, Monica Cirstoiu, **Octavian Munteanu**.

26. **First Prize** in the Session A of Oral Presentations, within the XXIIth National Congress of the Romanian Society of Anatomy with international participation, May 12-14, 2022, Brasov, Romania, for the paper "Macroscopic and microscopic aspect regarding the intrauterine development of nails - authors: Andra Baloiu, Ioan Andrei Petrescu, Filipoiu Florin, **Octavian Munteanu**.
27. **Second Prize** for the paper "The incidence and variability of the persistent metopic suture in a population of crania from the inter-war population", authors: Maria Voinea, Andra Baloiu, **Octavian Munteanu** in the Fundamental Sciences Section of the IMSCB Congress - 8th edition, December 4-8, 2024, Bucharest, Romania.

In 2022 I received „**Gradation of Merit**” by competition for teaching, administrative, research and publishing activity within the Faculty of Medicine of the "Carol Davila" University of Medicine and Pharmacy.

1.2.5 Affiliation to professional societies

- Romanian College of Physicians
- Romanian Society of Anatomy
- Romanian Society of Obstetrics and Gynecology
- Romanian Society of Endocrinological Gynecology
- Romanian Society of Biomaterials
- Romanian Society of Uro-gynecology
- Romanian Association of Pain Study
- Romanian Association of Lynch Syndrome
- International Society of Ultrasound in Obstetrics and Gynecology

1.2.6 Activity in editorial boards and reviewer activity

- Member in the editorial board of „Durerea” – the journal of the Romanian Association of Pain Study ISSN 1220-8752 starting with Vol. XXV, no. 3 (2015)
- Reviewer for the following journals and editors:
 - Cureus, Journal of Medical Science, Part of Springer Nature.
 - Experimental and Therapeutic Medicine, Spandidos Publications.
 - B.P. International Publishing.

1.2.7 Invited speaker and member in the scientific committee of national and international congresses

Over the course of my career, I have been an invited speaker at 47 national and international conferences and congresses. I have also participated in organizing such scientific events as follows:

1.2.7.1 Member in scientific committees of organization of international congresses

1. Member of the International Organizing Committee of the 3rd International Conference on Electrical and Electronics Engineering ICEEE 2014.
2. Member of the Academic Committee of The International Medical Students Congress of Bucharest, 6-10 December 2017, Bucharest, Romania.
3. Member of the Academic Committee of The International Medical Students Congress of Bucharest, 5-9 December 2018, Bucharest, Romania.
4. Member of the Academic Committee of The International Medical Students Congress of Bucharest, 4-8 December 2019, Bucharest, Romania.

1.2.7.2 Member in scientific committees of organization of national congresses

1. Member of the National Scientific Committee of the 6th Congress of the Romanian Society of Endocrinological Gynecology, Bucharest, September 22-24, 2011.
2. Member of the National Scientific Committee of the 7th Congress of the Romanian Society of Endocrinological Gynecology, Sinaia, June 6-8, 2013.
3. Member of the Organizing Secretariat of the 8th Congress of the Romanian Society of Endocrinological Gynecology, Bucharest, June 12-14, 2014.
4. Member of the Presidium of the “Ovarian Aging” Session at the 8th Congress of the Romanian Society of Endocrinological Gynecology, Bucharest, June 12-14, 2014.
5. Member of the Local Scientific Organizing Committee of the 16th Congress of the Romanian Society of Anatomy, Bucharest, May 7-9, 2015.
6. Member of the Judging Committee I of the Poster Session at the 16th Congress of the Romanian Society of Anatomy, Bucharest, May 7-9, 2015.
7. Member of the Judging Committee II of the Poster Session at the 16th Congress of the Romanian Society of Anatomy, Bucharest, May 7-9, 2015.

8. Responsible for the Vaginal Birth Simulator workshop at the 16th Congress of the Romanian Society of Anatomy, Bucharest, May 7-9, 2015.
9. Member of the Organizing Secretariat of the 9th Congress of the Romanian Society of Endocrinological Gynecology, Bucharest, September 17-19, 2015.
10. Member of the Honorary Scientific Committee of the National Congress for Students and Young Doctors, 19th Edition, Bucharest, December 10-13, 2015.
11. Member of the Organizing Committee of "The 6th Edition of the Weekly Residency Exam Simulations", Bucharest, March 28 – May 30, 2015.
12. Member of the Local Organizing Committee of the course "Diagnosticul si tratamentul tulburarilor de static pelvica in acord cu teoria integrativa" organized within the Bucharest University Emergency Hospital between 20-21.04.2016, Bucharest.
13. Member of the Honorary Scientific Committee of the National Congress for Students and Young Doctors, 20th Edition, Bucharest, December 8-11, 2016.
14. Member of the Organizing Committee of the Dissection Workshop – "Anatomia regiunii cervicale" 17-18.03.2017 Anatomy Discipline, Department II Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, Bucharest.
15. Member of the Scientific Organizing Committee of the National Conference of the Romanian Association for the Study of Pain, October 26-27, 2017, Bucharest.
16. Member of the Organizing Committee of the Workshop "Bazele anatomice pentru injectarea cu acid hialuronic. Rezultatele folosirii tehnicii de radiofrecventa si microneedling. Rezultatele tratamentelor cu acid hialuronic" March 11, 2017, Bucharest.
17. Member of the Organizing Secretariat of the 10th Congress of the Romanian Society of Endocrinological Gynecology "Standarde de diagnostic si tratament in infertilitate", June 15-17, 2017, Sinaia.
18. Member of the specialized jury at the event "Sesiunile Stiintifice Medicale – Obstetrica-Ginecologie", June 14, 2017, Bucharest.
19. Member of the Organizing Committee of the Dissection Workshop on the topic "Anatomia regiunii cervicale – editia II", March 16-17, 2018, Bucharest.
20. Member of the specialized jury of oral presentations on surgical topics at the SURGICON 2022 congress, October 27-30, 2022, Bucharest.

21. Member of the specialized jury in the Gynecology Section of the event "Sesiuni stiintifice medicale", June 4, 2024, Bucharest.
22. Member of the Organizing Committee of the "Scolii de vara pentru elevi", July 8-15, 2024, UMF "Carol Davila", Bucharest.
23. Member of the Organizing Committee of the VII Edition of the "Freshers Week" project, September 23-29, 2024, UMF "Carol Davila", Bucharest.
24. Member of the specialized jury at the 18th edition of the "Zilele educatiei medicale" conference, March 14-23, 2025, Bucharest.
25. Member of the Scientific Organizing Committee of the conference "Arta comunicarii in practica medicala – editia II", February 13-14, 2025, Bucharest.

1.2.8 Representative studies and published articles

1.2.8.1 Studies of medical devices used in Obstetrics and Gynecology

In order to decrease the rate of septic complications in gynecological patients, as well as to decrease maternal-fetal morbidity and mortality in pregnant patients, I have conducted several studies on the biomaterials in the structure of medical devices used in Obstetrics and Gynecology.

These studies were conducted in collaboration with the group of biomaterials experts from the Materials Science and Engineering Faculty within the University Politehnica of Bucharest, Romania.

1.2.8.1.1 Comparison of Pain Level During and After Intrauterine Device Insertion: Levonorgestrel-Releasing Intrauterine System Versus the Copper T Intrauterine Device

In 2016, we have conducted a comparative study evaluating the pain experienced by women during and after the insertion of two types of intrauterine devices (IUDs)(10): the levonorgestrel-releasing intrauterine system (LNG-IUS) and the copper T380A intrauterine device (C T380A IUD), considering their structural differences (11). Conducted prospectively at the University Emergency Hospital in Bucharest, the study involved 100 women who chose IUD-based contraception, divided equally into two groups of 50 women each receiving either the LNG-IUS or the copper T380A IUD. Pain assessment utilized a numeric rating scale at

insertion and again at a follow-up appointment four weeks later, as in other studies. Statistical analysis using the rank test showed no significant difference in reported pain levels between the two IUD types immediately after insertion and at the four-week follow-up. These results indicate that the choice between the LNG-IUS and copper T380A IUD should not be influenced by concerns regarding pain, facilitating better patient counseling and informed decision-making in contraceptive options (3,4,5).

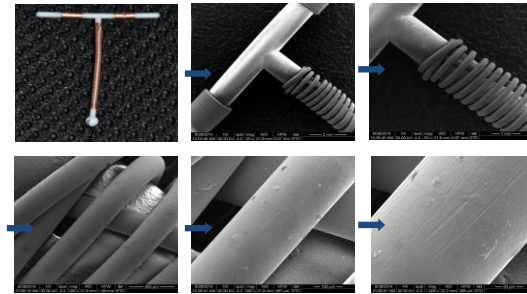


Figure 1.1. - SEM images of a new (never used) Copper T380A intrauterine device

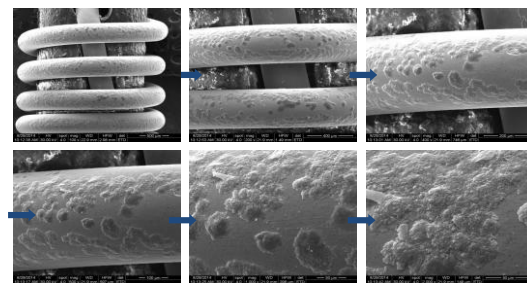


Figure 1.2. - SEM images of an explanted Copper T380A intrauterine device - note numerous organic and mineral deposits located on the surface of the device, but no visible erosions.

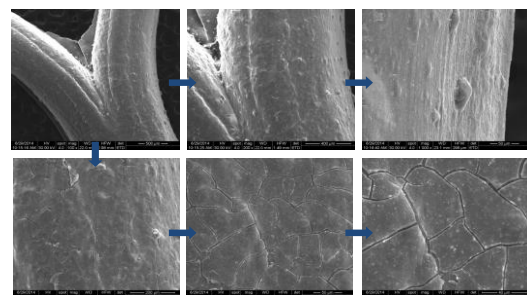


Figure 1.3. - SEM images of an explanted levonorgestrel-releasing intrauterine system - note numerous organic and mineral deposits located on the surface of the device and multiple erosions and even fissures)

1.2.8.1.2. Bleeding Disorders – A Frequent Complication Related to the Use of Intrauterine Device with Low Dose Hormonal Mechanism of Action

In 2015 we have conducted a prospective observational study aimed to examine the bleeding profiles of 35 women aged 18–45 initiating contraception with the recently introduced 13.5 mg levonorgestrel-releasing intrauterine system (13.5LRIS) in Romania. (15) Patients with conditions potentially influencing bleeding patterns were excluded. Clinical assessments occurred before insertion and at 30 and 60 days afterward, categorizing bleeding patterns into six groups: no bleeding disorders, amenorrhea, spotting, infrequent bleeding, frequent bleeding, and prolonged bleeding. The predominant issue identified was prolonged bleeding, particularly among women younger than 22 years. By day 60, however, the frequency of all bleeding disorders generally decreased, reflecting adaptation to the device's hormonal delivery. These initial irregularities were attributed to the structural characteristics and hormone release dynamics of the 13.5LRIS. Although its action resembles other levonorgestrel-releasing systems, this device exhibits a unique early bleeding profile due to its lower hormone dosage and specific release characteristics, emphasizing the need for patient counseling on transient side effects. The study also provides important regional data on early experiences with this contraceptive option (7, 8, 9).

1.2.8.1.3 Levonorgestrel-Releasing Intrauterine Systems: Device Design, Biomaterials, Mechanism of Action and Surgical Technique

In 2016 we have conducted another prospective study assessing how structural and dimensional differences between the 52 mg and 13.5 mg levonorgestrel-releasing intrauterine systems (19)(LNG-IUS) influence pain experienced during insertion and analyzed biomaterial degradation using clinical and experimental data (20). The study involved 46 women, equally divided into two groups receiving either the 52 mg LNG-IUS (Group B) or the 13.5 mg LNG-IUS (Group A). Pain during insertion was measured using a visual analog scale (VAS), and device degradation was assessed through scanning electron microscopy (SEM). Insertion was standardized and performed without anesthesia. Patients receiving the 13.5 mg device reported significantly lower insertion pain levels compared to the 52 mg device. Factors increasing pain perception included nulliparity, cervical length greater than 3 cm, first-time IUD insertion, and lower educational status. SEM analysis demonstrated progressive polymer surface degradation correlating with the duration of device usage, independent of hormone dose. This study

uniquely connects IUD structural features and biomaterial characteristics with patient comfort during insertion, indicating that smaller device size and inserter diameter enhance patient tolerability. Findings on polymer degradation further inform considerations regarding device lifespan, design optimization, and patient counseling practices (12, 13, 14).

1.2.8.1.4 Adverse Reactions Due to Use of Two Intrauterine Devices with Different Action Mechanism in a Rare Clinical Case

Our case study from 2016 documents and analyzes a rare clinical scenario involving a patient simultaneously using two intrauterine devices (IUDs) with different mechanisms: one hormonal (levonorgestrel-releasing) and one non-hormonal (copper-based) (24). A 33-year-old woman presented with pelvic-abdominal pain and dysfunctional vaginal bleeding. Transvaginal ultrasound identified the presence of two IUDs: a 52 mg levonorgestrel-releasing system and a Multiload copper device. Both devices were extracted and examined using scanning electron microscopy (SEM), revealing significant degradation and organic deposits, with greater deterioration observed on the copper device. Clinical symptoms were attributed to a combination of hormonal disturbances from the levonorgestrel system and local inflammatory reactions due to the copper device, accompanied by ovarian cysts and endometrial changes. Additionally, a potential link was proposed between systemic hormonal dysfunction and levonorgestrel reservoir degradation. (25). This represents the first documented case involving simultaneous use of two IUDs with different mechanisms, underscoring the need for careful clinical and imaging evaluations prior to insertion and highlighting how interactions between device materials may affect systemic and local pathophysiology (16, 17, 19) .

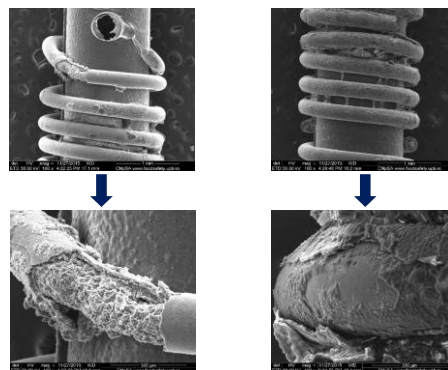


Figure 1.4. - SEM images of the extracted Multiload intrauterine device – note the presence of numerous organic deposits on the surface and also strong deterioration of the copper wire

1.2.8.2 Morphological and Imagistic Contributions to the Study of Intrauterine Development

Since a thorough knowledge of the intrauterine development of the embryo and subsequently of the fetus is one of the fundamental desires of a Maternal-Fetal Medicine specialist, we have performed several embryology studies.

These anatomical-imaging studies were carried out through the collaboration of the Anatomy Discipline of the “Carol Davila” University of Medicine and Pharmacy with the Departments of Obstetrics-Gynecology and Pathology of the University Emergency Hospital in Bucharest.

1.2.8.2.1. A Comprehensive Study Regarding the Intrauterine Development of Nails

This morphological study that we have conducted in 2021 analyzed the emergence and maturation of fetal fingernails and toenails from 6 to 29 weeks of gestation using 41 formalin-fixed embryos and fetuses, grouped into five developmental stages (29). Examination of nail structures was performed macroscopically via dissection microscopes, high-definition imaging, and sagittal dissections for structural clarity. Results showed that fingernail development consistently preceded toenail formation, with the developmental gap progressively widening from two weeks to approximately nine weeks by the end of the second trimester. Structural differentiation followed a distinct stage-specific sequence, with nail morphology closely resembling postnatal structures by 25–28 weeks. The findings revised earlier developmental timelines by demonstrating earlier macroscopic nail formation than previously reported, providing a comprehensive morphological reference for prenatal diagnostics and evaluations involving nail dysplasia. (21, 22).

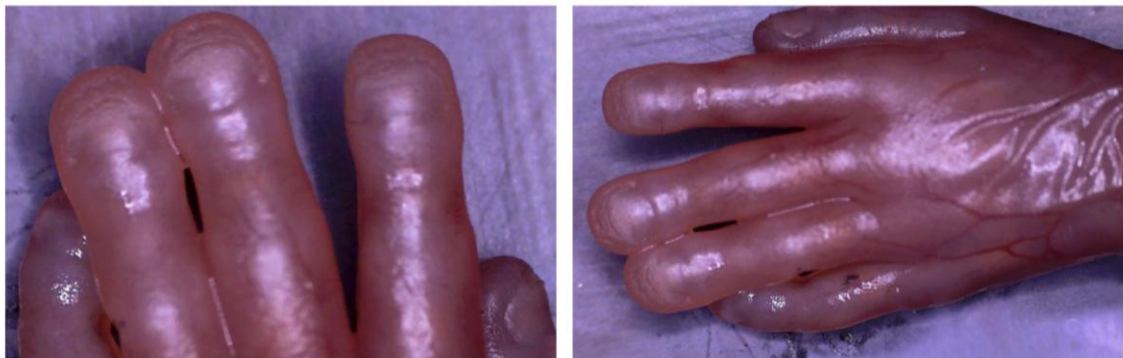


Figure 1.5. - Macroscopic view of the dorsal aspect of fingernails in embryos with a gestational age of 8 weeks, using a dissection microscope. Note the convex, rectangular nail field bordered by the four nail grooves.

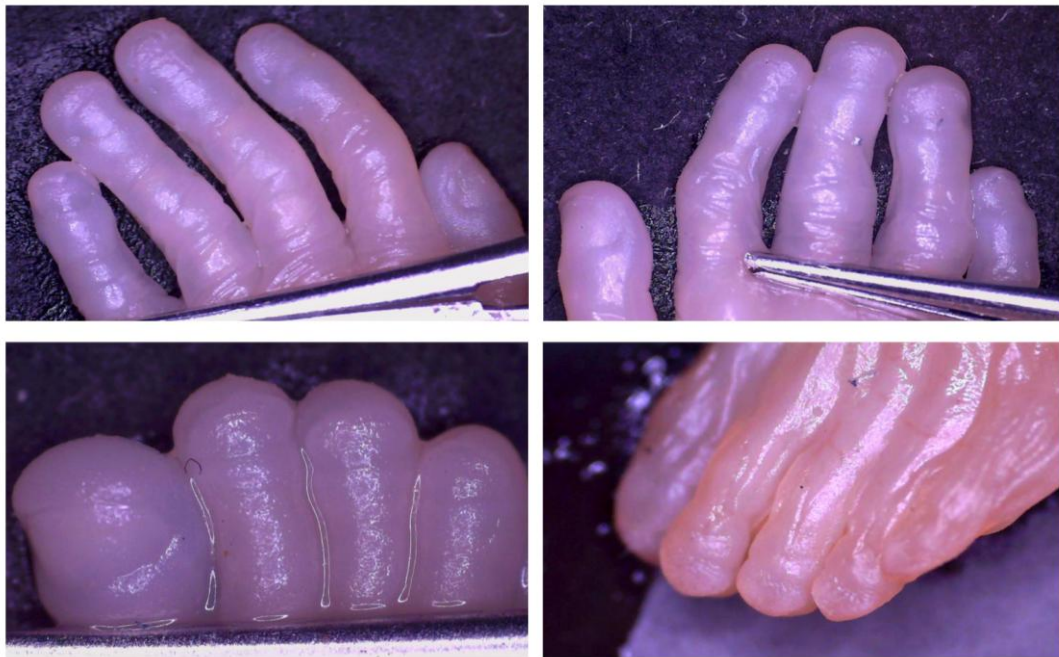


Figure 1.6. - Macroscopic view of fingernails (A) and toe-nails (B) in subjects with a gestational age of 9 weeks. Note the distal ridge, as well as the emergence of the nail plate in fingernails. Toe-nail in this stage lack the aforementioned features.

1.2.8.2.2 A Systematic Approach of the Intrauterine Morphogenesis of the Human Palpebral Apparatus

After a study we have performed in 2022 (32), a chronological model for human eyelid development during gestation was established, correlating macroscopic and microscopic findings with clinical implications in ophthalmic pathology. Dissections and histological analysis of 41 embryos and fetuses between 6 and 29 weeks of gestation allowed us the categorization into three evolutionary stages (A–C), based on detailed morphological observations using routine histology and dissection microscopy. Stage A involved eyelid fold formation and fusion. Stage B featured differentiation of eyelid components, including tarsal plates, palpebral sulci, and orbicularis oculi muscle, with separation apparent by stage end. Stage C represented full maturation, with anatomical structures closely resembling those of postnatal eyelids. The study addresses gaps in human-focused eyelid embryology, previously reliant mostly on animal models, and offers a simplified, comprehensive staging system, enhancing diagnostic precision in pediatric ophthalmology and fetal imaging. (33)

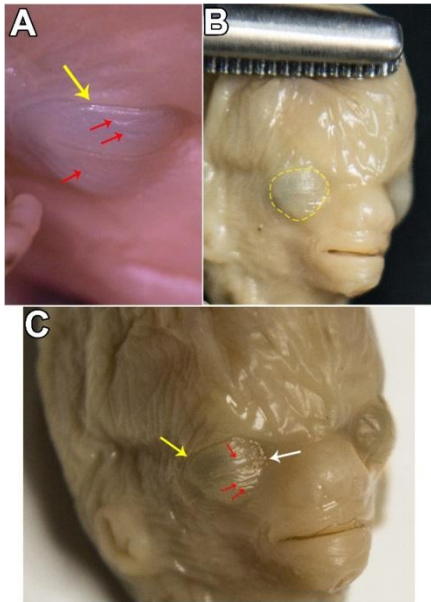


Figure 1.7. - Eyelid of a 6-week old embryo, oblique-anterior view;

Picture A was taken using a dissection microscope

Yellow arrows and yellow dotted contour highlight the groove circumscribing Additus Orbitae.

White arrow points towards the transverse groove marked by the palpebral fusion.

Red arrows indicate the creases on both upper and lower eyelids which give the aspect of a wrinkled eye.

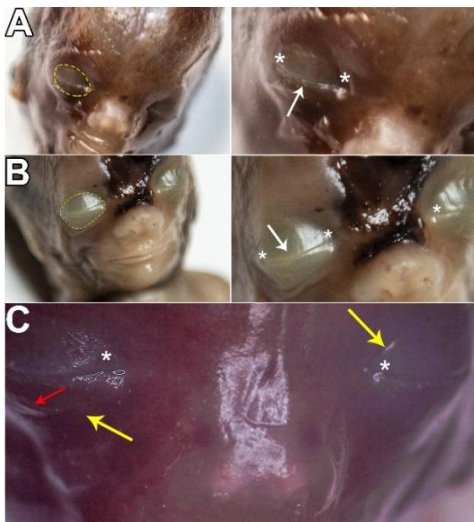


Figure 1.8. – Eyelids of: A, C – 7-week-6-day old embryo and B – 8-week-3-day old embryo;

picture C was captured with the dissection microscope

Yellow arrows and yellow dotted contour – groove corresponding to Additus Orbitae

White arrows – palpebral fusion; notice that both medial and lateral limit, respectively the medial and lateral palpebral commissures (white asterisks) are very alike at this gestational age

Red arrows – transversal creases along the upper and lower eyelids; notice they appear less often than in younger specimens

White asterisks – palpebral commissures

1.2.8.2.3 An Extensive Study Regarding the Microscopic Anatomy of the Early Fetal Human Optic Nerve

In 2024 we have published our findings regarding the early development of the human optic nerve. (34) Between 8 and 14 weeks of gestation, the histological and immunohistochemical development of the optic nerve was examined in 60 orbits from 30 embryos using hematoxylin-eosin and immunostains for S100, GFAP, NSE and E-cadherin. Morphometric analyses showed NSE-positive ganglion cell axons indicating axonal maturity by eight weeks, with astrocytes progressively forming tubular sheaths by 13–14 weeks and the blood–nerve barrier appearing morphologically complete by week 13. By week 14, a decrease in optic nerve diameter suggested axonal pruning, while the meningeal layers differentiated from a single fibroblastic sheet into distinct pachymeninx and leptomeninges. This comprehensive structural, molecular and spatial profile clarifies the timeline of key neurodevelopmental events and enhances our understanding of congenital optic nerve anomalies (35), (36).

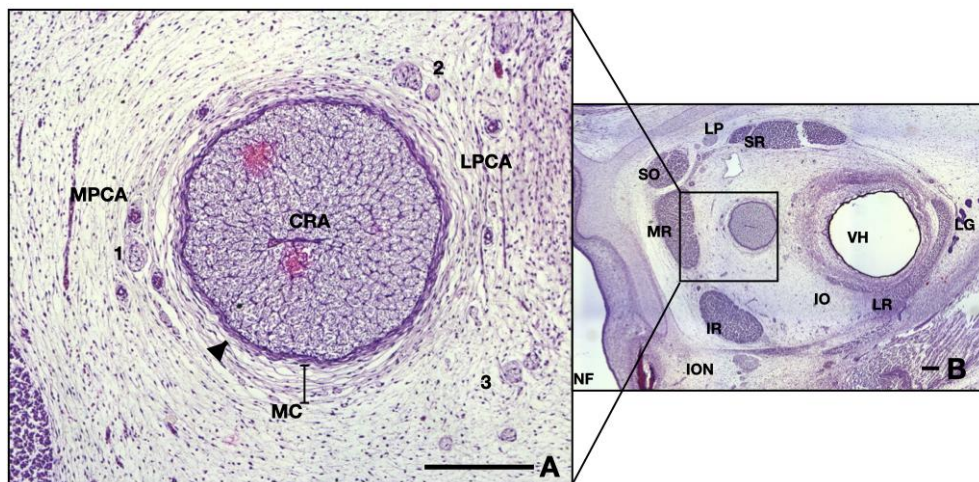


Figure 1.9. - Details of a 13 WG embryo. A: Detail of the ON and surrounding. B: Overview of the orbital space. Note the medial position of the nerve in the posterior half. CRA Central Retinal Artery, LPCA Lateral Posterior Ciliary Artery, MPCA Medial Posterior Ciliary Artery, MC mesenchymal condensation, 1 nasociliary nerve, 2 long ciliary nerve, 3 branches of oculomotor nerve, arrow head epineurium, NF nasal fossa, SR superior rectus, LP levator palpebrae, SO superior oblique, MR medial rectus, IR inferior rectus, ION infraorbital nerve, IO inferior oblique, LR lateral rectus, LG lacrimal gland, vitreous humor. Scale bars: 250µm.

1.2.8.2.4 Imagistic and Morphological Study Regarding the Development of the Ureter

The intrauterine development of the ureter was characterized in our study from 2018 via dissection of nine fetuses (8–22 weeks gestation) at “Carol Davila” University and prenatal ultrasound screening of 127 women (11–34 weeks gestation) (37). Dissection delineated key stages of ureteral morphology during renal ascent, while ultrasound detected reno-urinary malformations in 6.56% of cases—predominantly ureteral hydronephrosis (five stage II, one stage III) and two bilateral renal agenesis—and revealed a correlation between gestational diabetes and hydronephrosis. This combined anatomical and imaging study underscores ultrasound’s predictive role in fetal urological anomalies and illuminates their anatomical basis, facilitating earlier diagnosis and interdisciplinary management strategies (38), (39)



Figure 1.10. – Detail of the two kidneys and the pancreas in an embryo of 11-12 week of gestation – note the aberrant rotation of the right kidney which has the convex margin orientated towards posterior; this appeared probably because of the normal voluminous liver at this gestational age. Also, one can observe the sinuous trajectory and enlarged calibre of the ureter – this is a normal situation because the kidneys have not completed the ascensus process.

(picture was captured with the dissection microscope)

1.2.8.3 Studies of complex fetal malformations

The prenatal diagnosis of a congenital malformation represents a challenge for all specialists in Maternal-Fetal Medicine. However, the "in utero" diagnosis, established by ultrasonography, is often not confirmed by necropsy. We have conducted several studies of complex fetal malformations in order to establish clinical, ultrasonographical, and necroptic (by extensive dissection) correlations.

1.2.8.3.1 Case Report of a Novel Phenotype in 18q Deletion Syndrome

In 2020 we have addressed a previously unreported phenotype associated with 18q deletion syndrome—characterized by bilateral anophthalmia, cardiac defects, and craniofacial anomalies—was identified after second-trimester ultrasound and fetal MRI revealed major CNS and cardiac malformations, and array-CGH detected a 30.5 Mb deletion on chromosome 18q21.1–q23 (40). Following pregnancy termination, autopsy and histopathology confirmed bilateral anophthalmia, cleft lip, agenesis of the corpus callosum, ventriculomegaly, vermian agenesis, absence of optic pathways, septal defect, and overriding aorta, thus expanding the phenotypic spectrum of 18q deletion syndrome by associating it with ocular agenesis and severe CNS abnormalities and underscoring the complementary role of fetal pathology to imaging and genomic findings (41,42).



Figure 1.11. – Gross aspect of the fetus highlighting the craniofacial defects observed during autopsy: bilateral anophthalmia, cleft lip and low implantation of the ears.

1.2.8.3.2 Morphological study of cephalothoracopagus deradelphus type conjoined twins. A case report

In 2016 we have published a rare case of cephalothoracopagus deradelphus (43)-type conjoined twins was examined via anatomical dissection of a formaldehyde-fixed specimen obtained with patient consent, using magnification and standard calipers to assess external and internal morphology of the head, thorax, abdomen, and organ systems. The twins shared a single cephalic extremity with one “face” and were joined at the head, thoracic cavities, and upper abdominal walls; each had two normally formed upper and lower limbs. Internally, there were two hearts (one well-developed, one rudimentary), four lungs, a single pharynx, esophagus, and stomach, two separate intestines, and two kidneys with ureters; the urinary and genital systems appeared normal. Fusion and central nervous system anomalies rendered surgical separation unfeasible, indicating a poor prognosis. This detailed anatomical profile enriches the scarce documentation of the cephalothoracopagus deradelphus subtype, reinforcing previous morphological observations and informing clinical diagnosis and prenatal counseling for similar cases (44,45), 37).

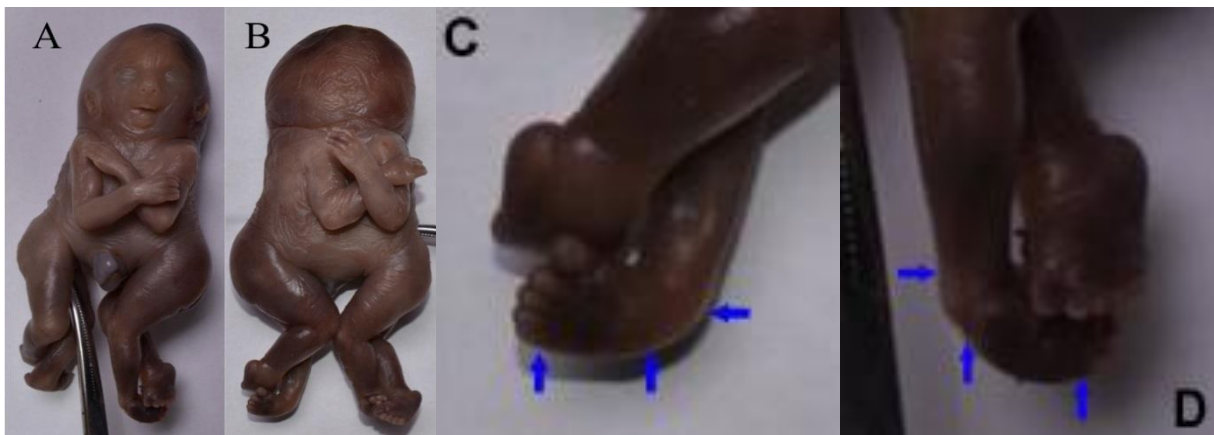


Figure 1.12. - External appearance of the specimen with Cephalothoracopagus deradelphus type. – note duplication originating in the caudal region - two nearly complete components joined front to front, single neck and with heads more or less completely fused into a single compound mass.

A. anterior view B. posterior view. C, D (details). Note the clubfoot (*talipes equinovarus*) of one of the "foetuses", the malformation involves the bones of the ankle and foot resulting in the adduction of the forefoot, inversion of the heel, and plantar flexion of the forefoot and ankle.

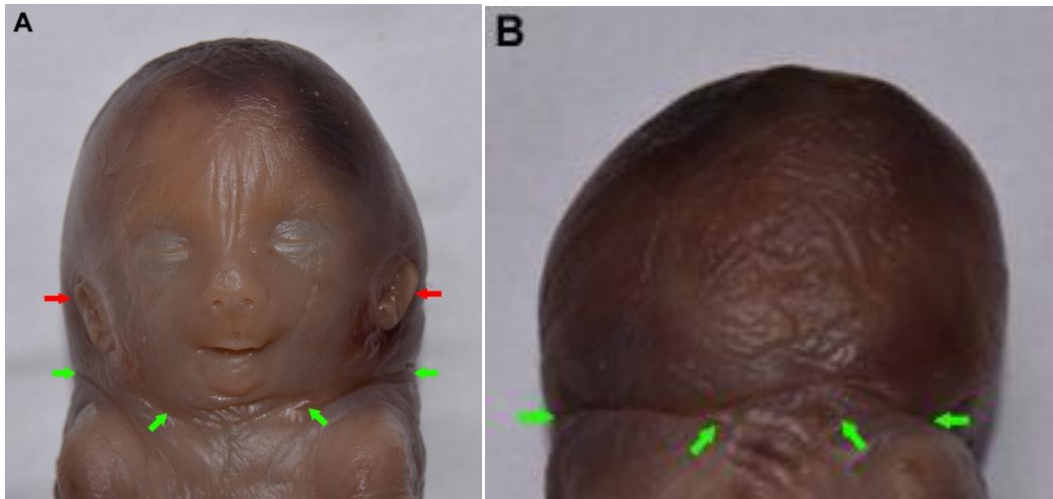


Figure 1.13. - Cephalothoracopagus deradelphus type. A. Detail with the “face”. We can note the apparently normal and symmetrical appearance of the face. One face with two ears (red arrows) and single neck (green arrows A and B).

1.2.8.3.3 The etiopathogenic and morphological spectrum of anencephaly: a comprehensive review of literature

In 2020 we have published a comprehensive narrative review of anencephaly (47), synthesizing data from scientific literature to elucidate its multifactorial etiology, embryological development, diagnostic features, and associated anomalies (48,49). Anencephaly arises from the failure of the cranial neural tube to close, resulting in the absence of the calvarium and cerebral hemispheres. Its occurrence is influenced by genetic mutations (such as, in MTHFR, VANGL, and PDGFRA), maternal folate deficiency, conditions such as obesity and diabetes, and exposure to teratogens. Universally fatal, anencephaly can be detected prenatally through first-trimester ultrasound, while postmortem examinations frequently reveal a spectrum of additional malformations. Emphasizing prevention, the review reinforces the critical role of periconceptional folate supplementation and advocates for early ultrasonographic screening to ensure prompt diagnosis, offering an integrated resource for clinicians and researchers alike (50,51).



Figure 1.14. – The appearance of the viscerocranium of a 9-week-old anencephalic fetus (anterior view).

1.2.8.3.4 Body stalk anomaly in a monochorionic-diamniotic twin pregnancy - case report and review of the literature

In 2017 we have described a rare case of body stalk anomaly (BSA) affecting one fetus in a monochorionic-diamniotic twin pregnancy (52), detected on first-trimester ultrasound by a massive thoraco-abdominal wall defect, severe scoliosis, and absence of the umbilical cord. Confirmation involved detailed antenatal and postnatal imaging, clinical assessment, amniocentesis (which ruled out chromosomal abnormalities), and postmortem histopathology. At 33 weeks' gestation, preterm rupture of membranes necessitated emergency Caesarean delivery: the healthy twin survived, while the affected twin succumbed 30 minutes after birth, with histopathology affirming the BSA diagnosis. This report enriches the scarce literature on BSA in multiple gestations by highlighting the pivotal role of early ultrasonographic diagnosis in guiding clinical management and decision-making in complex twin pregnancies (44,45,46,47).



Figure 1.15. - Macroscopic examination of the fetus with body stalk anomaly – note the presence of a large omphalocele, exencephaly, amelia of the left upper limb, a severely kyphoscoliotic spine and malrotation of the lower limbs, the large anterior abdomen wall defect with the viscera outside the abdominal cavity

1.2.8.3.5 Morphological and ultrasonographic study of fetuses with cervical hygroma. A cases series

In 2017 we have documented four antenatally diagnosed cases of cervical hygroma, identified in the first and second trimesters as hypoechogenic, septated cervical masses on detailed ultrasound and, in one instance, accompanied by hydrops fetalis (57); genetic testing in selected cases revealed chromosomal anomalies, pregnancies were terminated, and morphological dissection confirmed the sonographic findings. These cases underscore the diagnostic utility of early nuchal translucency assessment and 3D imaging for cervical hygroma, highlight its strong association with chromosomal abnormalities such as trisomy 21, and emphasize the necessity of prompt genetic screening for informed counseling and management (49,50, 51,52).



Figure 1.16. – Anterior aspect of a specimen with hydrops fetalis.

1.2.8.3.6 Ultrasound Pitfalls in a Complex Fetal Cardiac Malformation—Case Report of a New Arteriovenous Central Communication

In 2021 we have presented a rare case of a previously undocumented fetal arteriovenous communication between the left pulmonary artery and the brachiocephalic vein (62), highlighting the diagnostic challenges of complex cardiovascular anomalies and the essential role of detailed ultrasound interpretation and anatomical expertise according to the known literature (63,64). In a 20-week monochorionic fetus of a 31-year-old woman, prenatal ultrasound suggested a ventricular septal defect, ductal coarctation, and an aneurysmal structure with turbulent flow near the pulmonary artery—initially misread as a common carotid artery—and, following pregnancy termination, Doppler imaging, 3D reconstructions, and classical autopsy confirmed a dilated brachiocephalic vein forming a novel arteriovenous fistula with the left pulmonary artery, along with dilation of major neck and thoracic veins, mild cardiomegaly, and a large patent ductus arteriosus. This report introduces a new form of fetal central arteriovenous communication, underscores the limitations of routine ultrasound in rare vascular anomalies, and advocates for enhanced anatomical training and advanced Doppler modalities to improve prenatal cardiovascular assessment, while laying groundwork for future studies on fetal hemodynamics and rare venous malformations(65–67).

1.2.8.4 Clinical and Histopathological Challenges in Rare and Complex Surgical-Oncological Cases

Patients with gynecological neoplasms often present multiple comorbidities. Also, intraoperatively, other pathologies that require the experience of a general surgeon can be detected. Thus, in many cases, a multidisciplinary surgical team is needed to resolve complex intra-abdominal pathologies.

The general surgeon also plays an essential role in the management of pregnant women with pregnancy-related oncological pathology.

1.2.8.4.1 Colon Cancer in Pregnancy: A Diagnostic and Therapeutic Challenge

In 2019 we have published an article presenting a rare case of colon cancer diagnosed at 33 weeks' gestation in a 36-year-old pregnant woman, whose abdominal symptoms prompted imaging and surgical intervention with emergency Caesarean delivery followed by left hemicolectomy(68). Histopathological examination—including hematoxylin–eosin staining and immunohistochemistry for Ki67, p53, CK20, CK7, CDX2, β -catenin, and mucin markers—confirmed a stage IVA (pT3N1M1a) moderately differentiated adenocarcinoma with ovarian metastasis, characterized by a high proliferation index (Ki67 95%), CK20+/CK7– phenotype, diffuse CDX2 expression, COX2 overexpression, and negative estrogen and progesterone receptors. This report illustrates the diagnostic complexities and necessity of interdisciplinary management in colorectal cancer during pregnancy, emphasizes the prognostic utility of detailed immunophenotyping, and expands the limited literature on cancer–pregnancy overlap (69,70).

1.2.8.4.2 Axillary Lymphadenectomy: Safe Dissection Through a Correct Technique

Our study from 2024 describes a safe, reproducible technique for axillary lymphadenectomy based on dissections of two cadavers to expose key neurovascular structures—including the long thoracic nerve, thoracodorsal bundle, intercostobrachial nerves, and pectoral nerves—with photographic documentation of surgical planes and anatomical variability(71). We have identified consistent landmarks, emphasized preservation of the long thoracic and thoracodorsal nerves, noted the frequent sacrifice of intercostobrachial nerves,

and linked ansa pectoralis injury to postoperative aesthetic and functional deficits. By delineating these landmarks and strategies to minimize morbidity, this protocol enhances anatomical understanding, promotes surgical precision, and supports nerve preservation and functional recovery in oncologic axillary dissection (72,73).

1.2.8.4.3 Primary Retroperitoneal Hydatid Cyst: A Diagnostic and Treatment Conundrum

In 2024 we have presented a rare case of primary retroperitoneal echinococcosis in a 24-year-old woman with chronic lumbar pain, diagnosed via ultrasound, CT, and serology confirming *Echinococcus granulosus* (74). After preoperative albendazole, she underwent laparoscopic scolical injection, partial cystectomy, and cavity drainage, resulting in safe resection of an 8 × 12 cm retroperitoneal cyst with no intraoperative complications or recurrence on follow-up imaging; albendazole was continued postoperatively. This case highlights the feasibility and safety of laparoscopic management in extrahepatic hydatid disease, underscores the importance of differential diagnosis and parasitic awareness in endemic areas, and supports minimally invasive surgery in selected patients (75,76).

1.2.8.4.4 Laparoscopic Management of Abdominal Echinococcosis: A Technical Report on Surgical Techniques and Outcomes

In a study published in 2024, we describe a safe, standardized laparoscopic technique for treating abdominal hydatid cysts, involving cyst isolation with scolical agents, puncture, aspiration, unroofing, and cavity drainage, as outlined in established protocols (77). This approach enabled effective inactivation and removal of medium-sized, uncomplicated cysts without spillage or anaphylaxis, demonstrating minimal complications. By emphasizing meticulous field isolation and targeted resection, this reproducible minimally invasive method contributes practical guidance to surgical management of abdominal echinococcosis and supports its inclusion in parasitic disease treatment guidelines (78).

1.2.8.4.5 Laparoscopic Intraperitoneal Onlay Mesh (IPOM) in the Treatment of Ventral Hernias: Technique Discussion Points

In 2024 we have published a narrative review of studies examining laparoscopic intraperitoneal onlay mesh (IPOM) and IPOM-Plus techniques for ventral hernia repair, focusing on defect closure, fixation strategies, mesh types, seroma rates, recurrence, and pain

outcomes (79). The analysis revealed that IPOM-Plus lowers recurrence and seroma rates but carries a modest increase in short-term pain; fixation choice (sutures versus tacks) influences immediate postoperative discomfort without affecting long-term pain, and mesh shrinkage is more pronounced when tacks are used. By highlighting these trade-offs, the review advocates tailoring laparoscopic hernia repair—particularly employing defect closure in appropriate patients—to optimize functional outcomes and reduce complications and recurrence (80,81).

1.2.8.4.6 A Review of Neoadjuvant Therapy and the Watch-and-Wait Protocol in Rectal Cancer: Current Evidence and Future Directions

This narrative review published in 2024, conducted according to SANRA guidelines, evaluates the evolving role of neoadjuvant therapy and the “watch-and-wait” (WW) strategy in rectal cancer by analyzing 63 PubMed studies—including the RAPIDO, OPRA, and PRODIGE 23 trials—to assess patient selection, imaging modalities (MRI and endoscopy), response assessment, and survival outcomes (82). It demonstrates that WW yields disease-free and overall survival rates comparable to those of surgery in patients achieving a complete clinical response after neoadjuvant treatment, while highlighting limitations such as variability in cCR definitions and risks of local regrowth and distant metastasis. By consolidating this evidence, the review advocates for individualized, organ-preserving approaches supported by standardized assessment protocols in rectal cancer management (83,84).

1.2.8.4.7 Status of and Challenges in Therapy of Mucinous Ovarian Cancer Associated with Pseudomyxoma Peritonei Syndrome: Review of Current Options and Future Treatment Trends

This PRISMA-based systematic review from 2024 based of 14 years of literature across three databases examined mucinous ovarian carcinoma (MOC) associated with pseudomyxoma peritonei (PP), grouping studies by epidemiology, pathology, diagnosis, treatment, and prognosis (85). Cytoreductive surgery (CRS) with hyperthermic intraperitoneal chemotherapy (HIPEC) remains the standard of care for resectable cases, while MOC demonstrates poor responsiveness to platinum-based regimens. Immunohistochemical and mucin gene profiling—using markers such as PAX8, CK20, SATB2, and MUC2—aids in distinguishing primary ovarian tumors from gastrointestinal metastases. Emerging molecular-targeted strategies focus on mucin genes and include monoclonal antibodies like oregovomab

and gatipotuzumab. By highlighting the limitations of conventional chemotherapy and underscoring the importance of genetic and histopathologic profiling, this review advocates for personalized treatment approaches and supports the investigation of mucin-targeted agents in future clinical trials (86,87).

1.2.8.5 Advances in Diagnosis and Multidisciplinary Management in Musculoskeletal and Obstetrical and Gynecological Conditions

Orthopedic pathologies are very rare during pregnancy. However, the management of a pregnant woman with a fracture requires the experience of an orthopedist. Conversely, in musculoskeletal pathology of the pelvis, intraoperative intervention by a gynecological surgeon is necessary. In osteoporotic patients, good collaboration between the gynecologist and orthopedist reduces the risk of complications caused by decreased bone mineral density.

In addition, as an experienced anatomist, I have also participated in facilitating complex orthopedic surgical interventions by establishing anatomical landmarks in a few interdisciplinary studies.

1.2.8.5.1 Assessing the Tibial Tubercle–Posterior Intercondylar Eminence Distance as a Superior Indicator for Patellar Instability and Surgical Planning in Tibial Tubercle Osteotomy

In 2024 we have retrospectively analyzed 60 patients with patellar instability and varying trochlear dysplasia who underwent tibial tubercle osteotomy between 2016 and 2022, using preoperative MRI and CT to measure both the novel tibial tubercle–posterior intercondylar eminence (TT–IC) distance and the traditional tibial tubercle–trochlear groove (TT–TG) distance alongside trochlear angle, lateral trochlear slope, and facet asymmetry (88). Statistical analysis with nonparametric tests and ROC curves showed that TT–IC was significantly more consistent and reproducible than TT–TG in dysplastic trochleae, with a TT–IC threshold of 2.25 cm yielding 85% sensitivity and 62% specificity for lateralization on both imaging modalities. These findings support TT–IC as a robust alternative landmark for preoperative planning in patellofemoral instability, particularly in patients with abnormal trochlear morphology, and advocate its incorporation into surgical planning algorithms for TTO (89,90).

1.2.8.5.2 Chondrosarcoma of the Pelvis – Case Report

In 2018 we have reported a rare incidental pelvic chondrosarcoma in a 43-year-old woman presenting with dyspareunia, whose imaging—including ultrasound, X-ray, CT, SPECT/CT, and angiography—revealed a large osteolytic lesion of the iliopubic and ischiopubic ramus (91). A guided biopsy with histopathological and immunohistochemical analysis confirmed a grade 2 chondrosarcoma characterized by moderate nuclear atypia, 20 % Ki-67 positivity, and partial p53 involvement. En bloc resection via an ilioinguinal approach by a multidisciplinary surgical team achieved complete tumor removal with preservation of the acetabulum and pelvic organs, although hip adduction was compromised due to resection of adductor muscle origins. This case underscores the importance of including musculoskeletal tumors in gynecological differential diagnoses, highlights the value of a multidisciplinary approach in complex pelvic surgery, and suggests potential molecular links between benign and malignant tumor development (92,93).

1.2.8.5.3 Management of Bimalleolar Fracture in Pregnancy

In 2018 we have published a paper regarding a 35-week pregnant woman with inherited thrombophilia sustained a right bimalleolar fracture that was imaged under lead shielding and managed via open reduction and internal fixation of the fibula, diastasis screw placement, and deltoid ligament repair under spinal anesthesia in lateral decubitus, with concurrent antibiotic, antithrombotic, and tocolytic therapy alongside continuous fetal monitoring and obstetric support (94). Her postoperative course was uneventful, with satisfactory radiological healing and normal fetal development, allowing discharge after three days and ongoing multidisciplinary follow-up. This case demonstrates the feasibility and safety of complex orthopedic surgery in advanced pregnancy when guided by interdisciplinary collaboration and highlights essential considerations for anesthesia choice, thromboprophylaxis, and fetal protection in traumatic scenarios (95).

1.2.8.5.4 An Update on Osteoporosis

This narrative review published in 2018 synthesizes current concepts in osteoporosis pathophysiology, diagnostics, clinical implications, and treatment, emphasizing prevention

and personalized care (96). Osteoporosis notably impacts aging populations—especially postmenopausal women—and fracture risk estimation relies heavily on tools like FRAX and bone mineral density measurements. First-line pharmacologic therapy consists of bisphosphonates, with denosumab reserved for patients intolerant of oral agents, while selective estrogen receptor modulators offer vertebral protection in younger postmenopausal women. Non-pharmacological strategies, including nutrition and exercise, remain foundational. Emerging treatments such as anti-sclerostin antibodies show promise for future application. By reinforcing the importance of early screening, multifaceted risk stratification, and integrated lifestyle and pharmacologic interventions, this review underscores a comprehensive approach to reducing osteoporosis-related morbidity (97,98).

1.2.8.6 Contributions in Neurovascular Diagnostics and Molecular Neuroscience

Neuroanatomy is the most complex part of Anatomy but also the most important in terms of the repercussions of affecting noble structures. Decoding the molecular mechanisms that control the activity of the entire nervous system is essential in understanding degenerative and traumatic pathology. Thus, in-depth knowledge of neuroanatomy is essential for neurologists and neurosurgeons.

1.2.8.6.1 Decoding Neurodegeneration: A Review of Molecular Mechanisms and Therapeutic Advances in Alzheimer's, Parkinson's, and ALS

This narrative review published in 2024 (99) synthesizes molecular insights into Alzheimer's disease, Parkinson's disease, and amyotrophic lateral sclerosis, highlighting shared hallmarks—misfolded proteins ($A\beta$, tau, α -synuclein, TDP-43), mitochondrial dysfunction, oxidative stress, neuroinflammation, and genetic regulation—and evaluates cutting-edge diagnostic tools such as PET imaging and fluid biomarkers (CSF $A\beta$ /tau, plasma NfL), alongside emerging therapies including antisense oligonucleotides, CRISPR/Cas9 gene editing, and Nrf2 pathway activators; it also explores the gut–brain axis and microbiota as novel targets, proposing a unified precision-medicine framework for early detection and intervention that bridges basic science and translational neurotherapeutics (100,101).

1.2.8.6.2 Revolutionizing Neuroimmunology: Unraveling Immune Dynamics and Therapeutic Innovations in CNS Disorders

This review from 2024 examines the immunological mechanisms underlying central nervous system diseases and explores emerging neuroimmunological therapies and delivery systems (102). Over 200 publications were analyzed, focusing on microglial function, astrocyte signaling, blood–brain barrier modulation, and immune dysregulation in neurodegeneration, multiple sclerosis, and brain tumors, with evaluation of technologies such as nanocarriers, mRNA vaccines, and gene therapy. The authors highlight how microglial priming, astrocytic cytokine modulation, and meningeal lymphatics have redefined CNS immunology, and discuss promising immunotherapies targeting PD-1/PD-L1, toll-like receptors, and NLRP3 inflammasomes, alongside advanced drug delivery systems and neuromodulation techniques—including transcranial magnetic stimulation and vagal nerve stimulation. By reframing neuroimmunology as a cornerstone of CNS disease management, the paper links immune dysfunction with neurodegeneration and proposes an integrative precision-medicine framework for neurological disorders (103,104).

1.2.8.6.3 Complex Anatomy, Advanced Techniques: Microsurgical Clipping of a Ruptured Hypophyseal Artery Aneurysm

In a paper published in 2025, we present the microsurgical management of a ruptured right hypophyseal artery aneurysm in an 82-year-old woman, diagnosed by CT, three-dimensional digital subtraction angiography, and intraoperative indocyanine green angiography, who underwent clipping via a pterional craniotomy with Sylvian fissure dissection under temporary vascular occlusion, achieving complete aneurysm exclusion without complications and an uneventful postoperative recovery confirmed by follow-up imaging (105). The decision to forgo endovascular therapy in favor of microsurgery—guided by aneurysm morphology and patient-specific risks—proved successful. This case underscores the value of high-resolution microsurgical techniques and detailed anatomical expertise in delivering optimal outcomes for complex aneurysms in elderly patients (106,107).

1.2.8.6.4 Advancements in Brain Aneurysm Management: Integrating Neuroanatomy, Physiopathology, and Neurosurgical Techniques

This comprehensive review from 2024 examines the anatomical, pathophysiological, and technological foundations of intracranial aneurysm management by synthesizing data on vascular anatomy, hemodynamics, genetic predispositions, advanced imaging modalities (including 4D-MRA and OCT), and evolving surgical strategies (108). Key insights highlight the role of anatomical variants and wall shear stress in aneurysm formation and rupture, while cutting-edge diagnostics such as 7T MRI and computational fluid dynamics modeling enhance risk stratification. Therapeutic approaches have progressed from traditional clipping to flow-diverting stents and hybrid interventions, with emerging attention to gender-specific risk factors and AI-guided surgical planning. By integrating these advances, the review proposes a personalized, interdisciplinary model for cerebral aneurysm care and charts future directions in regenerative techniques and image-guided neurosurgery (109,110).

1.2.8.7 Endometriosis – Diagnostic and Therapeutic Challenges

Endometriosis, an estrogen-dependent pathology, is very common among young patients of reproductive age (111). Pain is the central symptom in these patients (112). This pathology can affect any anatomical structure, but especially the pelvic organs (111,113). Thus, as an anatomist and gynecologist, I studied the mechanisms of pain in these patients as well as the pathophysiology to identify etiological treatment options for this pathology

1.2.8.7.1 The Efficacy of Synthetic Oral Progestin Pills in Patients with Severe Endometriosis

This review from 2018 systematically evaluates the efficacy, safety, and tolerability of newly approved oral synthetic progestins—particularly dienogest—in the long-term management of severe endometriosis (114). A PubMed-based systematic review of English-language articles published from 2010 onward used keywords such as “deep infiltrating endometriosis,” “severe endometriosis,” “dienogest,” “progestin,” and “long-term treatment,” encompassing randomized controlled trials, comparative studies, and meta-analyses that assessed pain reduction, lesion size regression, quality of life, and adverse effects. Endometriosis remains a progressive, estrogen-dependent disease with high recurrence rates—up to 50% at five years—despite surgical excision. Dienogest, a fourth-generation synthetic

progestin, demonstrates potent endometrial activity, antiandrogenic effects, and excellent tolerability without metabolic disturbance or bone mineral density loss. Two large cohort studies from Japan and Europe (52–65 weeks of treatment) reported significant improvements in pain and lesion size with a low incidence of adverse effects, primarily breakthrough bleeding, and found dienogest as effective as GnRH agonists in symptom control but with a more favorable safety profile. In rectovaginal and bladder endometriosis, dienogest showed superiority in alleviating gastrointestinal and urinary symptoms, respectively, and continuous postoperative progestin therapy was associated with lower recurrence rates compared to discontinuation. These findings reinforce the rationale for incorporating dienogest into first-line and long-term therapeutic strategies, supporting a shift from surgical monotherapy toward an integrated medical-surgical approach to minimize recurrence and improve patient-centered outcomes in endometriosis care (115–117).

1.2.8.7.2. Case Study of a Rare Form of Endometriosis

In 2013 we have reported a rare incidental finding of deep infiltrating endometriosis (DIE) in a 29-year-old asymptomatic woman undergoing elective cesarean section at 38 weeks who had antiphospholipid syndrome, thrombophilia, and placenta previa; intraoperatively, multiple bluish, hemorrhagic nodules infiltrating the vesicouterine peritoneum and bladder serosa were excised and the bladder wall repaired, with histopathology confirming decidualized endometrial stroma, followed by six months of GnRH agonist therapy (Triptorelin) and an uncomplicated recovery (118). Despite extensive urinary tract involvement, the absence of prior symptoms underscores the diagnostic challenge of silent DIE, highlights the necessity for intraoperative vigilance during obstetric surgery, and supports the need for tailored surgical and hormonal strategies in urinary-tract DIE, where management guidelines remain based largely on expert opinion and case series (119–121).

1.2.8.7.3 Mechanism of Postoperative Pain in Patients with Endometriosis

We have published this article in 2017, aiming to explore the complex mechanisms behind postoperative pain in patients with endometriosis, a chronic, estrogen-dependent inflammatory condition affecting about 10% of women of reproductive age. (122) Endometriosis is characterized by the presence of endometrial-like tissue outside the uterus, often causing persistent pelvic pain, even after treatment. The pain arises from both peripheral

and central mechanisms. Peripherally, inflammation and the release of cytokines and growth factors stimulate nociceptors and promote neuroangiogenesis, leading to heightened pain sensitivity. Central mechanisms involve structural and functional changes in the brain and spinal cord that amplify pain perception, even in the absence of active lesions. Additionally, inter-visceral sensitization—where nerve fibers innervate multiple pelvic organs—contributes to widespread pain, especially in cases co-occurring with other disorders like irritable bowel syndrome or interstitial cystitis. Despite various treatment options including NSAIDs, hormonal therapies, and surgical interventions, pain often persists due to these deeply rooted neuroimmune and neuroplastic changes. The study emphasizes the need for a multidisciplinary approach combining medical, surgical, and psychological strategies to effectively manage pain in endometriosis.(123,124)

1.2.8.8 Adolescent Pregnancy – Clinical Complexity and Rare Associations

In Romania, teenage pregnancy is a major public health issue. The anatomical and physiological changes of the yet developing body can lead to increased fetal and maternal morbidity and mortality. Considering that pregnancy and childbirth still represent one of the main causes of infant mortality, we have conducted several studies on this very vulnerable group of pregnant women.

1.2.8.8.1 A Retrospective Study Regarding the Method of Delivery of Adolescents in a Romanian Hospital

In 2020 we have conducted a retrospective observational study of 686 adolescent mothers aged 12–19 years who delivered at the University Emergency Hospital in Bucharest between January 1, 2014, and December 31, 2018, stratified into groups A (12–17 years) and B (18–19 years), evaluated prenatal care utilization, delivery methods, obstetrical complications, and neonatal outcomes by reviewing medical records for the number of prenatal visits, mode of delivery, indications for Caesarean section, and neonatal metrics including Apgar scores and birth weight (125). An alarming 94.46% of group A and 40.81% of group B had received no prenatal care, and Caesarean delivery was performed in 52.76% of cases, most frequently for cephalo-pelvic disproportion, fetal distress, and previous uterine scars, with additional indications such as HIV infection, fetal malformations, or oncologic history; despite the high surgical intervention rate, neonatal outcomes were generally

favorable, with a mean 1-minute Apgar score of 8.69 and birth weights predominantly between 2,500 and 3,499 g (20% under 2,500 g). These findings expose systemic deficiencies in prenatal care among Romanian adolescents and a disproportionate reliance on surgical delivery in this vulnerable group, underscoring the need for standardized, age-tailored ante-, intra-, and postpartum protocols and policy-level interventions to improve obstetric outcomes (126,127).

1.2.8.8.2 Ante-, Intra-, and Postpartum Management of a Pregnant Adolescent Diagnosed with Hodgkin's Lymphoma

In 2019 we have reported the case of a 15-year-old pregnant adolescent diagnosed with stage II nodular sclerosis classical Hodgkin's lymphoma, confirmed by cervical lymph node biopsy and MRI; initial corticosteroid therapy and single-agent vinblastine yielded only a partial response, prompting escalation to the ABVD regimen, while weekly obstetric monitoring with tocolysis and corticosteroids preceded an elective Caesarean section at 30 weeks for chronic fetal distress (128). Despite intensive chemotherapy, fetal growth remained within normal limits aside from a reduced amniotic fluid index, and a live female neonate (1,400 g; Apgar scores of 5 and 7 at 1 and 5 minutes) was delivered; postpartum CT imaging revealed extensive mediastinal and supraclavicular lymphadenopathy without distant metastases, and both maternal and neonatal courses were favorable. This report illustrates the diagnostic and therapeutic challenges of managing Hodgkin's lymphoma during adolescent pregnancy, supports the safety and efficacy of ABVD in the second and third trimesters, underscores the importance of individualized, multidisciplinary care and precise staging, and contributes valuable evidence to the scarce literature on aggressive oncologic treatment during gestation (129,130).

1.2.8.8.3 Neonatal Outcome of Adolescent Pregnancies Complicated with Anemia

In 2022 we have conducted a retrospective study at the Department of Obstetrics and Gynecology, University Emergency Hospital in Bucharest, between April 15, 2020, and April 15, 2022, 258 adolescent mothers aged 13–19 were stratified by hemoglobin levels into a non-anemic group (≥ 10 g/dL, $n = 156$) and an anemic group (< 10 g/dL, $n = 102$) (131). Anemia was present in 39% of pregnancies, and over 80% of patients in both groups received no prenatal care. Preterm birth occurred in 15% of anemic versus 13% of non-anemic

adolescents; severe anemia (Hb < 7 g/dL) affected 3% of the anemic cohort, all requiring transfusions and resulting in births under 1,000 g. Two maternal deaths—due to cerebral pathology and AIDS—occurred exclusively in the anemic group, which also bore all cases of hepatitis B and C, active herpes simplex, and HIV, leading to poorer neonatal Apgar scores. Interestingly, low 1-minute Apgar scores (<7) were more frequent in the non-anemic group, likely reflecting unrecognized comorbidities amid inadequate antenatal care. A slightly higher rate of SARS-CoV-2 infection was noted among anemic adolescents. These findings underscore anemia as an independent risk factor for prematurity and neonatal morbidity, compounded by nutritional deficits, insufficient prenatal monitoring, and vulnerability to infections, and they call for targeted public health measures, early anemia screening, and tailored prenatal protocols for adolescents in resource-limited settings (132,133).

1.2.8.9 Obstetrical Surgery – Iatrogenic Risks and Prevention Strategies

In Urogynecology, a subspecialty of Obstetrics and Gynecology, one of the main goals is to restore the pelvic floor restraint system through minimally invasive techniques that mimic the normal anatomy of the region. In oncological gynecological surgery, some of the most feared iatrogenic complications are represented by: ureteral lesions, urinary bladder lesions and, more rarely, urethral lesions. Hence, prevention strategies and thorough knowledge of anatomy, in view of the complete understanding of risk ratios, is mandatory for any surgeon operating in the pelvis.

1.2.8.9.1 Strategies of Preventing Ureteral Iatrogenic Injuries in Obstetrics and Gynecology

This comprehensive review from 2012 synthesizes anatomical, pathophysiological, and technical risk factors for iatrogenic ureteral injury in obstetric and gynecologic surgery—drawing on clinical anatomical studies, operative literature, and case reports—to propose a two-tiered prevention framework encompassing recognition of patient- and procedure-specific risk factors (such as anatomical variations, prior adhesions, and surgical complexity) and optimization of dissection and handling techniques across open, vaginal, and laparoscopic approaches, with measures like mandatory preoperative pelvic ultrasound, direct ureteral visualization, avoidance of blind clamping, and minimized electrocautery near key vascular pedicles (134). The authors report that ureteral injuries account for up to 50 % of iatrogenic

lesions—with abdominal hysterectomy posing the highest risk—and offer procedure-specific guidelines (e.g., close-to-uterus/ovary ligament clamping, retroperitoneal ureteral dissection, and use of clips instead of energy devices near uterosacral ligaments) to mitigate this risk. By integrating detailed anatomical education with practical intraoperative protocols, this article delivers one of the earliest Romanian contributions to ureteral injury prevention in pelvic surgery and furnishes a pragmatic guide aligned with international safety standards to reduce renal morbidity and medico-legal consequences (135,136).

1.2.8.9.2 Intrapartum and postpartum bladder management

This paper we have published in 2016 reviews bladder dysfunction during labor and the postpartum period by combining a literature synthesis with observational analysis of four cases—ranging from acute urinary retention to long-term incontinence—after both spontaneous vaginal and cesarean deliveries, using diagnostic ultrasound and catheterization to guide interventions such as Foley catheter placement and monitoring (137). These cases revealed that risk factors including prolonged labor, perineal trauma, epidural or spinal anesthesia, and prior urinary tract infections can precipitate urethral edema, retention, and persistent incontinence, and that improper bladder management may lead to detrusor dysfunction and heightened infection risk. The report underscores the need for routine monitoring of first-void timing, adequate hydration, and early mobilization, and advocates the development of standardized intrapartum and postpartum bladder care protocols—incorporating ultrasound assessment, timely catheterization, and, when necessary, surgical intervention—to prevent irreversible urinary sequelae (138,139).

1.2.8.9.3 Reconstructive options after iatrogenic ureteral lesions

In this paper from 2016 we analyze reconstructive strategies for iatrogenic ureteral injuries sustained during gynecologic surgery, drawing on international literature from PubMed, ISI Web of Science, and Cochrane with statistical analysis via Excel and SPSS (140). Ureteral injuries are classified into five grades, from minor contusions to complete avulsions with devascularization, most frequently affecting the pelvic segment during procedures such as hysterectomy, lymphadenectomy, and colposuspension. Management spans simple catheterization for minor trauma to complex reconstructive interventions—including ureterocystostomy, psoas hitch, Boari flap, ureteroureterostomy, or even kidney

autotransplantation—for extensive injuries, while late-recognized lesions often necessitate staged nephrostomy. By providing a structured framework that emphasizes detailed anatomical knowledge, weighs the merits of laparoscopic versus open repair and immediate versus delayed reconstruction, and advocates for early detection, injury-specific surgical planning, and standardized protocols with focused training, this article aims to reduce long-term complications such as strictures, fistulas, and renal impairment (141,142).

1.2.8.10 Thrombophilia and Obstetric Complications

Thrombophilias are abnormalities in hemostasis that can be heritable or acquired which predispose a patient to accelerated clotting (143). Patients affected by thrombophilic mutations may present an increased risk for various pregnancy complication due to placental vascular abnormalities (144). One of the objectives of the project RO 19.10 “Improving health services in high-risk pregnancy, premature birth and hematological diseases” in which I was director of Obstetrics and Gynecology was screening 1500 patients for inherited and acquired thrombophilias. This allowed us to perform numerous studies that contributed with their novelty in literature.

1.2.8.10.1 Inherited Thrombophilia is Significantly Associated with Severe Preeclampsia

In 2021 we have published this retrospective analysis of 956 pregnancies at the University Emergency Hospital Bucharest over five years examined the relationship between inherited thrombophilia—assessed via factor V Leiden, prothrombin G20210A, MTHFR C677T/A1298C, and PAI-1 4G/5G polymorphisms—and hypertensive disorders of pregnancy, categorizing patients into healthy pregnancies, chronic and gestational hypertension, and moderate versus severe preeclampsia (145). Thrombophilia was significantly more prevalent in severe preeclampsia (23%) compared with gestational hypertension (10.4%) and moderate preeclampsia (14.7%), and severe cases exhibited higher rates of IUGR (25.4%), prematurity (22.3%), HELLP syndrome (10.8%), and placental abruption (15.4%). Multinomial logistic regression confirmed thrombophilic mutations as predictors of progression to severe disease, though their discriminative power diminished in advanced stages. These findings identify inherited thrombophilia as a meaningful risk factor for severe preeclampsia, supporting

individualized management and targeted follow-up in high-risk pregnancies, while questioning the benefit of universal thrombophilia screening in obstetric care (146,147).

1.2.8.10.2 Frequency of Thrombophilia-Associated Mutations and Polymorphisms in Pregnant Women with a History of Thrombosis or Pregnancy Complications

In 2024 we have published a cohort study involving 1,500 pregnant women aged 13–50 years recruited through the RO19.10 national health project, thrombophilia genotyping of 1,291 valid cases by multiplex PCR and hybridization assays for nine variants—including factor V Leiden, prothrombin G20210A, MTHFR C677T/A1298C, factor V H1299R, factor XIII V34L, PAI-1 4G/5G, and EPCR G4600A/C4678G—revealed that every participant carried at least one thrombophilia-associated mutation, with 98.11% harboring two or more (median of four per patient), heterozygous factor V Leiden in 10.38%, prothrombin G20210A in 5.81%, and double heterozygosity in 1.08%; low-risk variants were particularly prevalent (MTHFR 89.39%, PAI-1 4G/5G 73.20%, EPCR variants 69.6%, factor XIII V34L 44%), and prothrombin G20210A co-occurred significantly more often in patients with factor V Leiden (10.37% vs. 5.36%; OR 2.04; $p = 0.019$) (148). As the largest thrombophilia screening study in Romanian obstetrics to date, these findings underscore a high burden of multiple low-risk mutations in pregnancies with adverse outcomes and support extending genetic screening beyond classical mutations to enable personalized surveillance and prophylaxis strategies (149,150).

1.2.8.10.3. Therapeutic Implications of Inherited Thrombophilia in Pregnancy

In 2019 we have published this comprehensive review that examines the clinical implications of inherited thrombophilia in pregnancy by synthesizing peer-reviewed literature from April 1981 to November 2018, highlighting how genetic procoagulant states—particularly factor V Leiden, prothrombin G20210A, and MTHFR variants—intersect with the hypercoagulable milieu of gestation to elevate risks of preeclampsia, recurrent pregnancy loss, intrauterine growth restriction, placental abruption, preterm birth, and idiopathic venous thromboembolism, which account for over 60 % of such events (151). It underscores clear indications for thrombophilia screening—such as personal VTE history, second-trimester losses, or a first-degree relative with high-risk mutations—and emphasizes that the decision to initiate low-molecular-weight heparin prophylaxis should be individualized based on

thrombophilia subtype, personal thrombotic history, and additional risk factors like obesity or age over 35. By linking genetic diagnosis with tailored anticoagulant regimens and detailing prophylactic versus therapeutic dosing strategies, this work provides clinicians with practical guidance on balancing maternal–fetal safety and underscores the enhanced maternal–fetal outcomes achievable through personalized thromboprophylaxis in obstetric practice (152,153).

1.2.8.11 Rare Obstetrical Conditions and Prenatal Diagnostic Challenges

Pregnant women with pregnancy-associated pathology represent a challenge for any obstetrician. Sometimes the antenatal diagnosis of rare fetal disorders is difficult to establish even through high-accuracy ultrasonographic techniques. Given the scarcity of such cases, their publication in the literature brings a special contribution to specialists in the field of Maternal-Fetal Medicine.

1.2.8.11.1 Implications of Human T-Lymphotropic Virus in Pregnancy: A Case Report and a Review of the Diagnostic Criteria and Management Proposal

In 2021 we have presented a case report regarding a pregnant woman with known HTLV-1 infection identified on routine prenatal testing was managed by a multidisciplinary team with serial proviral load assessments throughout gestation (154); when viral replication rose in the third trimester, lamivudine and zidovudine were initiated, and a cesarean section at 37 weeks—prompted by fetal growth restriction and premature rupture of membranes—was performed to reduce transmission risk. Despite timely delivery and neonatal adaptation, the newborn tested positive for HTLV-1 antibodies, breastfeeding was contraindicated, and no immediate neonatal or maternal complications ensued. This rare Romanian case underscores the diagnostic and therapeutic challenges of HTLV-1 in pregnancy, advocates for systematic screening in high-risk populations, and offers a management algorithm—comprising serological monitoring, targeted antiretroviral therapy, and structured neonatal follow-up—to inform obstetric practice and national guideline development. (155,156).

1.2.8.11.2 Pregnancy Outcomes in a Patient with Fontan Circulation for Single Ventricle Congenital Heart Disease and Aberrant Praevia Placental Lobe

In 2019 we have presented a case report describing a 22-year-old woman with surgically corrected single-ventricle physiology (Glenn and Fontan procedures) underwent intensive

cardiologic and obstetric surveillance—including serial echocardiography, Doppler studies, and continued antiplatelet therapy—during a pregnancy complicated by an aberrant praevia placental lobe with vascular fragility (157). This precipitated metrorrhagia and fetal growth restriction; cesarean delivery was performed at 33 weeks without maternal cardiac decompensation, and although the postoperative course was notable for endometritis, both mother and a small-for-gestational-age but otherwise healthy neonate recovered and were discharged in good condition. This case demonstrates that, under meticulous multidisciplinary management with individualized thromboprophylaxis and targeted placental monitoring, women with Fontan circulation can tolerate pregnancy—and highlights the need to anticipate rare placental abnormalities and tailor surveillance protocols accordingly (158,159).

1.2.8.11.3 Ultrasound Prenatal Diagnosis and Emergency Interventional Radiologic Therapy of Galen Aneurysmal Malformation in a Newborn

In 2016 we have presented an interesting case regarding a Galen aneurysmal malformation in a newborn. Prenatal ultrasound at 28 weeks revealed a large midline vascular malformation later confirmed by fetal MRI as a vein of Galen aneurysmal malformation (VGAM) (160). After birth, the neonate's rapid clinical deterioration prompted urgent neurointerventional embolization using Glubran/Lipiodol and coils, with continuous monitoring via cranial Doppler, echocardiography, and organ perfusion biomarkers. Although initial embolotherapy partially reduced arteriovenous shunt flow, the infant suffered severe cerebral hemorrhage and, despite intensive care, died on day 17; histopathological confirmation was not obtained, but imaging and clinical findings were consistent with high-flow VGAM. This case highlights the aggressive, time-sensitive nature of VGAM management, underscores the value of prenatal MRI confirmation and coordinated delivery in tertiary centers, and calls for improved prognostic models to guide optimal timing and modality of embolotherapy (161,162).

1.2.8.11.4 A Rare Case of Fetal Spondylocostal Dysostosis – Prenatal Diagnosis and Perinatal Care in a Patient with Multiple Large Leiomyomas

Another interesting case was published by us in 2013 (163). In a 35-year-old primigravida with extensive uterine fibroids and a history of myomectomy, an 18-week anomaly scan using serial 3D ultrasound and targeted sonography revealed fetal

hemivertebrae, rib agenesis, and kyphoscoliosis suggestive of spondylocostal dysostosis, with amniocentesis excluding chromosomal anomalies; elective cesarean delivery facilitated precise perinatal management. Postnatal radiographs confirmed the prenatal findings of a short trunk, thoracic deformity, and rib anomalies, the neonate adapted well and demonstrated normal neurodevelopment at six months, and reconstructive rib surgery was planned. This case underscores the feasibility of high-resolution 3D imaging in the presence of maternal leiomyomas and highlights the value of early prenatal diagnosis for informed counseling and orthopedic planning in spondylocostal dysostosis (164,165).

1.2.8.11.5 Prenatal Ultrasound Diagnosis of Double Aortic Arch Versus Right Aortic Arch Variant in Vascular Ring Formation – Case Report and Literature Review

In 2021 we have described an interesting case report with literature review. Prenatal ultrasound at the routine second-trimester three-vessel–trachea view revealed a vascular ring, and color Doppler demonstrated bifurcation of the aortic arch encircling the trachea—findings diagnostic of a double aortic arch—while comparative imaging excluded right aortic arch variants and fetal karyotype was normal (166). Although delivery was scheduled by cesarean at 37 weeks without other anomalies detected, the neonate succumbed on day two to presumed airway obstruction from tracheal compression by the vascular ring, underscoring that antenatal identification of double aortic arch—even with normal genetic screening—requires meticulous neonatal airway management planning and early postnatal imaging (167).

2. ACADEMIC ACTIVITY AND ACHIEVEMENTS

2.1 Academic history and main didactic duties

In the fall of 2003, at the end of the third Anatomy lecture, Prof. Univ. Dr. Alexandru Teodor Ispas told us, the students that were attending, that all his assistants who were teaching in the Dissection Laboratories were his former students and that some of us would also become infected with a microbe called "*Anatomy*" and would remain in the Department of Anatomy.

After only 3 weeks in the "Carol Davila" University of Medicine and Pharmacy, I realized that I no longer perceived *Anatomy* as a simple subject in the timetable. It was the passion for *Anatomy* which was rising: special attention to details, rigors imposed by the International Nomenclature, morpho-physiological variations, constant clinical implications and the need to know and learn as many particularities as possible.

In the second year, I started attending the lectures given to the first year students by my group assistant, Senior Lecturer Eugen Tarța-Arsene M.D. Ph.D. and Prof. Univ. Dr. Alexandru Teodor Ispas, who were the ones who instilled in me the love and passion for *Anatomy*.

Since my third year of studying Medicine, I have been working as a Volunteer University Tutor in the Anatomy Department of "Carol Davila" University of Medicine and Pharmacy in Bucharest, with the approval of the Head of Department. Together with the members of the department and my best friend Dr. Alexandru Ioan Bulescu, I have performed various dissections, understanding that *Anatomy* can only be studied in a hands-on manner, "on the cadaver".

In 2009, I defended my Diploma Thesis in the Anatomy Department of the "Carol Davila" University of Medicine and Pharmacy in Bucharest – an extensive study of Comparative Anatomy of the pectoral region. I continued volunteering in the Anatomy Department during my first year of residency in the Obstetrics-Gynecology specialty.

In 2011, I began my doctoral research study in the Field of Medicine, Anatomy Specialty under the guidance of Prof. Univ. Dr. Alexandru Teodor Ispas and I worked as an Associate Assistant in the Anatomy Department of the "Carol Davila" University of Medicine and Pharmacy in Bucharest (hourly payment).

In 2012, I was appointed, by competitive examination, Associate Assistant Lecturer, in the Anatomy Department, Faculty of Medicine of the “Carol Davila” University of Medicine and Pharmacy in Bucharest.

In 2013, I developed the project entitled "Evaluarea riscului de travaliu distocic în funcție de nivelul expresiei relative a genelor ERAP2, LILRA3 și OXTr la nivel miometrial și de nivelul proteinelor serice codificate de acestea", which subsequently entered into the internal Competition "Young Researchers of the University of Medicine and Bucharest 2013" and declared the winner. The project, with a funding of 5000 euros, was successfully completed. The results obtained were the basis for the development of a full-length article, published in the ISI indexed journal and two presentations at international conferences whom abstracts were also published in ISI Web of Science indexed journals.

In June 2014, I was co-opted as a member of the target group of the project "Cercetarea doctorală și postdoctorală prioritate a învățământului superior românesc" (Doc-Postdoc, Contract identification number: POSDRU/159/1.5/S/137390, with the research topic: Developing a protocol for early assessment of the risk of cephalopelvic disproportion.

In June 2015, I publicly defended my doctoral thesis entitled "Reevaluation of the criteria for establishing the diagnosis of cephalopelvic disproportion and fetal extraction by cesarean section", following which I received the title of Doctor in Medical Sciences.

Between 2012 and 2015, as Associate Assistant Lecturer, in the Anatomy Department, Faculty of Medicine of the “Carol Davila” University of Medicine and Pharmacy in Bucharest, I taught practical anatomy lectures for the 1st and 2nd year medical students. The main didactic duties were to present theoretically the entire Anatomy of the human body but also perform dissection with the students in order to train their personal practical skills.

In 2015, I was appointed, by competitive examination, to the position of Assistant Lecturer (permanent employee), in the Anatomy Department, Faculty of Medicine of the “Carol Davila” University of Medicine and Pharmacy in Bucharest. Between 2015 and 2021 I continued teaching practical anatomy lectures to the 1st and 2nd year medical students. The main didactic duties were to present theoretically the entire Anatomy of the human body but also perform dissection with the students in order to train their personal practical skills. During this time, I also started teaching lectures to the 1st and 2nd year medical students, by the kindness of the Head of the Anatomy Department, Prof. Univ. Dr. Florin Mihail Filipoiu.

In 2021, I was appointed, by competitive examination, Senior Lecturer in the Anatomy Discipline, Department II Pre-clinic, Morphological Sciences, Faculty of Medicine of the “Carol Davila” University of Medicine and Pharmacy in Bucharest. Since then I have been teaching both practical and theoretical anatomy lectures to 1st and 2nd year medical students. The main didactic duties are to present theoretically the entire Anatomy of the human body but also perform dissection with the students in order to train their personal practical skills. I also teach 1st and 2nd year medical students the entire intrauterine development of the embryo and, subsequently, the fetus.

I have established and coordinated three dissection teams made up of students and resident physicians with the following themes: morpho-functional study of the pelvis, intrauterine development and complex fetal malformations.

From Prof. Univ. Dr. Florin Mihail Filipoiu I understood that there is only one future for Anatomy – Clinical Anatomy. For this reason, my entire teaching and research activity has been focused in this direction.

2.1.1 Academic activity with students

I have been teaching Embryology and Anatomy to 1st and 2nd year medical students since 2005. So I can state that I have a vast experience in training future specialists in different medical fields.

I have adapted my teaching and practical dimension so that nowadays I combine the vision of a clinician with the one of training the fresh student of the Faculty of Medicine, whose conception of the art and science of medicine is certainly influenced by those with whom he takes his first steps.

In order to explain complex concepts of anatomy and to ease the pursuit of one in understanding anatomy, I always try to combine theoretical aspects with “on site” elements on the cadaver. This is why in order to facilitate the learning process I usually perform complex dissections on cadavers and embryos prepared for dissection with formaldehyde in the Anatomy Department of “Carol Davila” University of Medicine and Pharmacy.

I have constantly participated actively in the congresses and conferences organized by the medical student societies in order to support extracurricular activities of my students:

1. Member of the Academic Committee of The International Medical Students Congress of Bucharest, 6-10 December 2017, Bucharest, Romania.
2. Member of the Academic Committee of The International Medical Students Congress of Bucharest, 5-9 December 2018, Bucharest, Romania.
3. Member of the Academic Committee of The International Medical Students Congress of Bucharest, 4-8 December 2019, Bucharest, Romania.
4. Member of the Honorary Scientific Committee of the National Congress for Students and Young Doctors, 19th Edition, Bucharest, December 10-13, 2015.
5. Member of the Organizing Committee of “The 6th Edition of the Weekly Residency Exam Simulations”, Bucharest, March 28 – May 30, 2015.
6. Member of the Honorary Scientific Committee of the National Congress for Students and Young Doctors, 20th Edition, Bucharest, December 8-11, 2016.
7. Member of the specialized jury at the event “Sesiunile Stiintifice Medicale – Obstetrica-Ginecologie”, June 14, 2017, Bucharest Romania.
8. Invited speaker at the 12th edition of “Zilele Educatie Medicale”, organized by SSMB, March 29 – April 7, 2019, Bucharest, Romania.
9. Invited speaker at the International Surgical Congress for Students SURGICON 2019 - "Iatrogenic ureteral injuries in gynecological surgery: mechanisms and prophylaxis" October 24-27, 2019, Bucharest, Romania.
10. Invited speaker at the 3rd edition of the International Medical Student's Congress of Bucharest – “Clinical Case Obstetrics and Gynecology” December 4-8, 2019, Bucharest, Romania.
11. Invited speaker and responsible for the workshop "First Steps in Anatomical Dissection - Heart Anatomy", Second Edition, 13.12.2019, Bucharest, Romania.
12. Invited speaker at the 4th edition of the International Medical Student's Congress of Bucharest – “Clinical Case Obstetrics and Gynecology” December 9-13, 2020, Bucharest, Romania.
13. Invited speaker at the 4th edition of the International Medical Student's Congress of Bucharest – “Diagnosis: Obstetrics Obstetrics and Gynecology” December 9-13, 2020, Bucharest, Romania.

14. Invited speaker at the 5th of the International Medical Student's Congress of Bucharest – “Anatomical landmarks in Obstetrics and Gynecology”, December 8-12, 2021, Bucharest, Romania.
15. Invited speaker and responsible for the workshop at the 6th of the International Medical Student's Congress of Bucharest – "A day in the life on OB-GYN", November 23-27, 2022, Bucharest, Romania.
16. Member of the specialized jury of oral presentations on surgical topics at the SURGICON 2022 congress, October 27-30, 2022, Bucharest, Romania.
17. Invited speaker and responsible for the workshop at the 7th of the International Medical Student's Congress of Bucharest – „Contraceptives: What’s so scary about a little pill?”, December 6-10, 2023, Bucharest, Romania.
18. Member of the specialized jury in the Gynecology Section of the event "Sesiuni stiintifice medicale”, June 4, 2024, Bucharest.
19. Member of the Organizing Committee of the “Scolii de vara pentru elevi”, July 8-15, 2024, UMF “Carol Davila”, Bucharest.
20. Member of the Organizing Committee of the VII Edition of the “Freshers Week” project, September 23-29, 2024, UMF “Carol Davila”, Bucharest.
21. Invited speaker and responsible for the workshop at the 7th of the International Medical Student's Congress of “A day in the life of an Ob-Gyn”, December 4-8, 2024, Bucharest, Romania.
22. Invited speaker at the Zilele Educatiei Medicale – “Echilibrul hormonilor: riscuri si beneficii in contraceptie” March 14-23, 2025, Bucharest, Romania.
23. Member of the specialized jury at the 18th edition of the “Zilele educatiei medicale” conference, March 14-23, 2025, Bucharest, Romania.

2.1.2 Academic activity with resident-doctors in Obstetrics and Gynecology

I have been a theoretical and practical tutor for resident doctors since 2015. Due to the fact that I have been working since 2010 in the University Emergency Hospital in Bucharest, the largest emergency hospital in Romania, I have a vast experience in teaching future specialists in Obstetrics and Gynecology the management of complex cases in our specialty.

Most of the resident-doctors in Obstetrics and Gynecology that I teach learn how to perform the obstetrical manoeuvres and gynaecological interventions required by the residency programme - in collaboration with the resident doctor or even by the resident doctor himself, carefully supervised.

I am specialized in Obstetrical Ultrasonography and Maternal-Fetal Medicine and I teach the resident doctors how to perform complex fetal biometry and detect possible signs of chronic or acute fetal distress. Prenatal diagnosis is mandatory nowadays and this is why future specialists are trained in evaluating the fetal anatomy. I also routinely perform gynaecological (trans-vaginal or trans-abdominal) ultrasonography. Therefore the doctors that I supervise learn the tips and tricks of ultrasound examination right from their residency years.

Due to my complex knowledge in anatomy, I also present practical and theoretical notions, mandatory for the interpretation of pelvic CT and MRI imaging investigations in the clinical context of our patients. As the hospital in which I work also has a large Compartment of Interventional Radiology, our residents are also trained in determining the indications and contraindications of interventional therapy (e.g. uterine arteries embolization for uterine fibroids or cervico-vaginal arteries embolization in patients with inoperable genital cancers or rare forms of ectopic pregnancy).

I provide surgical training to resident-doctors in Obstetrics and Gynaecology by performing complex gynaecological interventions and complicated obstetrical manoeuvres. We usually discuss and evaluate each step of the chronic interventions. We also analyse the management of obstetrical and gynaecological emergencies. Due to my complete knowledge and expertise I can perform gynaecological interventions classically, laparoscopic or hysteroscopic. Therefore the resident-doctors that I supervise are capable of performing minimally invasive techniques in personalised cases.

In order to demonstrate complex techniques, especially in the field of Obstetrics and Gynecology, I have collaborated, many times, with the Simulation Department of the Innovation and E-health Center of “Carol Davila” University of Medicine and Pharmacy in Bucharest, as follows:

1. Invited speaker and responsible for the workshop “Vaginal Birth Simulator” at the 16th Congress of the Romanian Society of Anatomy, May 7-9, 2015. Bucharest, Romania.

2. Invited speaker and responsible for the workshop "Demonstrații practice de asistență la naștere" within the National Congress for Students and Young Doctors, 19th Edition, December 10-13, 2015, Bucharest, Romania.
3. Invited speaker and responsible for the workshop "Demonstrații practice de asistență la naștere" within the National Congress for Students and Young Doctors, 20th Edition, December 10, 2016, Bucharest, Romania.
4. Invited speaker – “The Clinical Management of the Pregnant Woman and the Newborn Workshop”, within The International Medical Student's Congress of Bucharest, December 6-10, 2017, Bucharest, Romania.
5. Invited speaker - "Obstetrics and Gynecology Workshop", within The International Medical Student's Congress of Bucharest, December 5-9, 2018, Bucharest, Romania.
6. Invited speaker - "Clinical Case: Obstetrics and Gynecology Workshop", within The International Medical Student's Congress of Bucharest, December 5-9, 2018, Bucharest, Romania.

2.1.3 Academic activity with specialists in Obstetrics and Gynecology

I am a senior physician in Obstetrics and Gynecology since 2020 and I have the following competences: Ultrasonography in Obstetrics and Gynecology, Gynecological Laparoscopy, Cytology and Diagnostic Colposcopy, Hysteroscopy, Techniques of In vitro Fertilization and Maternal-Fetal Medicine. Therefore, due to my complete knowledge and expertise I can train specialists in Obstetrics and Gynecology in performing minimal invasive techniques in personalised cases.

In the Department of Obstetrics and Gynecology of University Emergency Hospital in Bucharest, I participate in the practical sessions of training specialists in Obstetrics and Gynecology in obtaining certificates for complementary techniques such as: Gynecological Laparoscopy, Diagnostic Colposcopy and Hysteroscopy.

I have been part of several organizing committees for practical sessions of training specialists in Obstetrics and Gynecology in obtaining the certificate for complementary techniques in Urogynecology, as follows:

1. Member of the Local Organizing Committee of the course "Diagnosticul si tratamentul tulburarilor de static pelvica in acord cu teoria integrativa" organized within the University Emergency Hospital Bucharest April, 20-21, 2016, Bucharest Romania.
2. Invited speaker at the 16th National Congress of the Romanian Society of Uro-gynecology, October 17-18, 2019, Bucharest, Romania.
3. Invited speaker at the workshop "Elemente de patologie uroginecologica si tehnici chirurgicale de baza in bolile planseului pelvin", 15.05.2024, University Emergency Hospital in Bucharest, Romania.

2.1.4 Academic activity with specialists in the Department of Pathology

I have extensive experience in establishing the prenatal diagnosis of fetal malformations, especially complex anomalies. I have also performed numerous necropsies on embryos and fetuses with gestational ages varying from 6 weeks to 36 weeks. I have also created a good collaboration with the Pathology Department of University Emergency Hospital in Bucharest.

Therefore, in complex congenital malformations, I participate in the necropsy of embryos and fetuses together with my colleagues from the Pathology Department in order to establish a correct and complete diagnosis.

2.2. Development of teaching materials

I have participated in developing monographs and chapters in specialized treatises in order to simplify the learning process for: high school students, medical students, resident doctors and young specialists. I have also participated in the translation into Romanian of the most prestigious international textbooks.

2.2.1 Didactic materials for medical school applicants

I have participated in the elaboration of books useful in the evaluation for the admission examination for medical school applicants at the Faculty of Medicine within „Carol Davila” University of Medicine and Pharmacy Bucharest, as follows:

1. Co-author of one chapter in „Biologie – Teste admitere – Facultatea de Medicina „Carol Davila”, Bucuresti, 2012” – “Sistemul reproducator”, Editura Universitară „Carol Davila” Bucuresti, 2012, ISBN :978-973-708-608-2.
2. Co-author of one chapter in „Manual de pregatire pentru admiterea in invatamantul superior medical Biologie 2013”, Bucuresti, 2013” - “Miscarea”, Editura Universitara „Carol Davila”, Bucuresti, 2013, ISBN: 978-973-708-672-3.
3. Author of one chapter in „Manual de pregatire pentru admitere in invatamantul superior medical Biologie 2014”, Bucuresti, 2014” – “Aparatul genital” - Editura Universitara „Carol Davila” Bucuresti, 2014, ISBN: 978-973-708-749-2.
4. Author of one chapter in „Manual de pregatire pentru admitere in invatamantul superior medical Biologie 2015”, Bucuresti, 2015” – “Sistemul reproducator” - Editura Universitara „Carol Davila” Bucuresti, 2015, ISBN: 978-973-708-825-3.
5. Author of one chapter in „Manual de pregatire pentru admitere in invatamantul superior medical Biologie 2016”, Bucuresti, 2016” – “Sistemul nervos” - Editura Universitara „Carol Davila”, Bucuresti, 2016, ISBN: 978-973-708-866-6.
6. Author of one chapter in „Manual de pregatire pentru admitere in invatamantul superior medical Biologie 2017”, Bucuresti, 2017” — “Analizatorii” - Editura Universitara „Carol Davila” Bucuresti, 2017, ISBN: 978-973-708-951-9.
7. Author of one chapter in „Teste de Biologie pentru admitere in invatamantul universitar medical 2021”, Bucuresti, 2021” – “Sistemul nervos” - Editura Universitara „Carol Davila” Bucuresti, 2021, ISBN: 978-606-011-186-3.
8. Author of one chapter in „Teste de Biologie pentru admitere in invatamantul universitar medical 2023”, Bucuresti, 2023” – “Sistemul nervos” - Editura Universitara „Carol Davila” Bucuresti, 2021, ISBN: 978-606-011-257-0.

2.2.2 Didactic materials for medical students

To aid the learning process of the medical students at the Faculty of Medicine within „Carol Davila" University of Medicine and Pharmacy Bucharest, I published monographs and chapters in the following textbooks:

2.2.2.1 Specialized monographs – co-author:

1. „Anatomy The Limbs – Practical sessions” - G. Lupu, F. Terteliu, E. Tarta, I. Bulescu, **O. Munteanu** “Carol Davila “ University Press, Bucharest 2010, ISBN: 978-973-708-458-3.
2. „Anatomy The Trunk Wall and the Limbs – Practical sessions ”- G. Lupu, E. Tarta, F. Terteliu, B. Diaconescu, I. Bulescu, **O. Munteanu** “Carol Davila “ University Press, Bucharest 2011, ISBN 978-973-708-603-7.

2.2.2.2 Co-author of chapters in specialty books:

1. Co-author of one chapter in – „Osteoporoza in menopauza editia a II-a revizuita si adaugita” – authors: Catalin Cirstoiu, Monica Cirstoiu, Anca Popescu, Dan Popescu, Ruxandra Sinescu, **Octavian Munteanu**, colaborator Alexandra Zlatianu – Chapter 2 – „Structura tesutului osos”, Editura Universitara „Carol Davila” Bucuresti, 2013, ISBN: 978-973-708-663-1.

2.2.2.3 Translation of specialized textbooks

1. “Sobotta – atlas de anatomie a omului: capul, gatul si neuroanatomie” – coordinator: Prof. Univ. Dr. Filipoiu Florin, Editura Medicala Callisto 2022, Bucharest, ISBN 978-606-8043-53-1.
2. “Sobotta – atlas de anatomie a omului: Anatomie generala si sistemul musculoscheletic” – coordinator: Prof. Univ. Dr. Filipoiu Florin, Editura Medicala Callisto 2022, Bucuresti, ISBN 978-606-8043-51-7.
3. “Sobotta – atlas de anatomie a omului: Organele interne” – coordinator: Prof. Univ. Dr. Filipoiu Florin, Editura Medicala Callisto 2022, Bucharest, ISBN 978-606-8043-52-4.

2.2.3 Didactic materials for resident-doctors and specialists in Obstetrics and Gynecology

I participated in the theoretical development of resident-doctors and specialists in Obstetrics and Gynecology by publishing chapters in famous Obstetrics and Gynecology textbooks. Giving my level of expertise I published mainly the chapters regarding the development and the anatomy of the female genital organs and perineum. I have also participated in the translation into Romanian of the most prestigious international textbooks.

Many of these books are part of the theoretical exam curricula for obtaining the title of specialist physician in Obstetrics and Gynecology.

2.2.3.1 Author and co-author of chapters in specialty books:

1. Author of two chapters: Capitolul I – „Dezvoltarea aparatului genital feminin”, Capitolul III – „Anatomia aparatului genital feminin”, Author of 7 chapters: Capitolul IV – „Malformatiile tractului genital feminin”, Capitolul V – „Intersexualitatea”, capitolul VI – „Examinarea ginecologica in pediatrie”, Capitolul VII – „Investigatiile paraclinice in Ginecologia Pediatria”, Capitolul IX – „Endometrioza la adolescente”, Capitolul XI – „Sexualitatea la adolescente”, Capitolul XIII – „Contraceptia la adolescente” in „Tratat de Ginecologie Pediatria”, Editura Universitara „Carol Davila”, Bucuresti, 2015, ISBN: 978-973-708-637-2.
2. Author of one chapter in - „Tratat de patologie mamara in copilarie si adolescenta” Editura Universitara „Carol Davila”, Bucuresti, 2015, ISBN: 978-973-708-832-1.
3. Co-author of Chapter I in – „Embriologia gestatiei multiple” authors: Monica Cirstoiu, **Octavian Munteanu**, Ioan Bulescu, in the national teextbook „Sarcina Multipla”, Editura Medicala Universitara Craiova, ISBN : 978-973-106-258-7.
4. Author of Chapter 8 – „Tratamentul interventional la pacientele cu polifibromatoza uterina” in „Actualitati in Obstetrica-Ginecologie si Neonatologie”, coordinators: C Mehedintu, S Vladareanu, editura Universitara „Carol Davila”, Bucuresti, 2016, ISBN: 978-973-708-937-3.
5. Author of Chapter 2 – „Mecanisme de aparitie a durerii in endometrioza” authors: Monica Cirstoiu, **Octavian Munteanu**, Oana Bodean, Diana Voicu in „Endometrioza” sub redactia C Berceanu, E Bratila, MM Cirstoiu, C Mehedintu, editura Medicala Universitara Craiova, Craiova, 2018, ISBN – 978-973-106-296-9.

6. Co-author of 3 chapters - Chapter 1 „Notiuni de Anatomie si embriologie ale colului uterin”, pg 13-30, authors: **Octavian Munteanu**, Maria Neamtu, Monica Cirstoiu, Chapter 2 – „Cancerul de col uterin – epidemiologie”, pg 31-44, authors: **Octavian Munteanu**, Luciana Arsene, Diana Voicu, Nicolae Suciu, Monica Cirstoiu, Chapter 18 „Prezervarea fertilitatii la pacientele cu cancer de col uterin” pg 287 – 296, authors: Raluca Tulin, **Octavian Munteanu**, Monica Cirstoiu, in „Tratat de patologie neoplazica si preneoplazica a colului uterin” Nicolae Suciu, Monica Cirstoiu, Nicolae Bacalbasa, Editura Academiei Romane, 2018, ISBN 978-973-27-2934-2.
7. Co-author of Chapter 1 – „Anatomie si histologia tractului genital inferior”, pg 25-55, authors: Monica Cirstoiu, Maria Sajin, **Octavian Munteanu**, Adrian Dumitru in „Tratat de patologie a tractului genital inferior”, Liana Ples, Anca Daniela Stanescu, Editura Universitara Carol Davila, Bucuresti, 2018, ISBN 978-606-011-048-4.
8. Co-author of Chapter 1 – „Anatomia ovarelor”, pg 15-26, authors: Monica Cirstoiu, **Octavian Munteanu**, Maria Neamtu in „Neoplasmul ovarian in sarcina”, Monica Mihaela Cirstoiu, Nicolae Bacalbasa, Iulian Brezean, Nicolae Suciu, Editura Academiei Romane, Bucuresti, 2019, ISBN 978-973-27-3080-5.
9. Co-author of Chapter 3 – „Anatomia organelor genitale externe”, pg 81-113, authors: Monica Cirstoiu, **Octavian Munteanu**, Maria Narcisa Neamtu in „Tratat de infectii cu transmitere sexuala”, Florica Sandu si Mihai Cristian Dumitrascu, Editura Editura Universitara „Carol Davila”, Bucuresti, 2022, ISBN: 978-606-011-229-7.
10. Co-author of two chapters - Chapter I “Anatomia chirurgicala a aparatului genital feminin”, pg. 3-13, authors: Florin Filipoiu, **Octavian Munteanu**, Maria Narcisa and Chapter XV “Ginecologia pediatria”, pg: 341-348, authors: Monica Cirstoiu, **Octavian Munteanu**, Maria Narcisa Neamtu in „Tratat de Obstetrica si Ginecologie”, sub redactia Gheorghe Peltecu, Editura Medicala, Bucuresti, 2024, ISBN: 978-973-39-0956-9.

2.2.3.2 Translation of specialized textbooks

1. „Williams Ginecologie” – author Barbara Hoffman - Chapter 19 „Evaluarea cuplului infertil”, ediția a II a, editura Hipocrate, Bucuresti, 2015, ISBN 978-973-88372-5-6.

2. „Williams Obstetrica ediția a 24 – a în limba romana" - Chapter 7 "Embriogeneza si dezvoltarea morfologica fetala in tratatul internațional", Prof. Dr. Monica Cirstoiu, **Octavian Munteanu**, Ioan Bulescu, Alexandra Zlatianu ISBN : 978-973-88372-7-0.
3. "Callen Ultrasonografie in Obstetrica si Ginecologie, ediția a 6-a M Norton, L, Scoutt, V Feldstein – coordonator editie in limba romana R Vladareanu" – Chapter "Anexa A - Măsurători frecvent utilizate pentru estimarea varstei gestationale si a biometriei fetale" editura Hipocrate, 2017, București, ISBN – 978-973-88372-8-7.
4. "Urgente in Obstetrica si Ginecologie, ediția a 2-a, S Doumouchsis si S Arulbkumaran, editori în limba romana E Bratila, M Cirstoiu, M Mitran" - Chapter 13 "Complicatii postoperatorii" editura Hipocrate, 2018, Bucuresti, ISBN – 978-606-94575-6-6.
5. “Infertilitatea - abordări globale și terapeutice” – two chapters: "Cap. 29 - Cand este necesara consilierea cuplului in scopul opririi eforturilor procreerii prin metode clasice de reproducere asistata?" and “Cap. 33 – Conservarea fertilitatii feminine”, editura Hipocrate, București, 2019, ISBN 978-606-94576-1-0.

2.3 Coordination of diploma and dissertation theses

With my students I performed multiple studies on cadavers and embryos. Many of my students decided to do their bachelor's thesis in the Department of Anatomy, Faculty of Medicine of the “Carol Davila” University of Medicine and Pharmacy in Bucharest as a result of the studies that we underwent together.

I coordinated 63 Diploma Thesis – all of which had interdisciplinary themes: Obstetrics-Anatomy, Gynecology-Anatomy, Infantile Cardiology-Anatomy, Orthopedics-Anatomy, Gastroenterology-Anatomy, or Neurology-Anatomy, as it follows:

1. “Studiul anatomo-imagistic al uterului in evaluarea infertilitatii” – Graduate: Neculae Ioana Irina – 2013.
2. “Studiul anatomo-imagistic al trompei si ovarului in evaluarea infertilitatii” – Graduate: Popescu Bogdan – 2013.
3. “Studiul anatomo-imagistic al malformatiilor cardiace congenitale la copil” – Graduate: Firescu Mihai Ionut – 2014.
4. “Studiul morfo-functional al jonctiunii eso-gastrice la copil” – Graduate: Soare Ramona Adriana – 2014.

5. “Studiul anatomo-imagistic al malformatiilor uterine congenitale si impactul asupra fertilitatii” – Graduate: Zlatianu Alexandra – 2014.
6. “Histeroscopia – Metoda moderna de diagnostic anatomo-imagistic si tratament in patologia uterului” – Graduate: Dida Tiberiu Gabriel – 2014.
7. “Studiul anatomo-clinic al colului uterin – implicatii ale infectiei HPV in carcinogeneza” – Graduate: Toma Mihaela Alina – 2015.
8. “Dimensiunile craniului fetal – corelatii anatomo-clinice si imagistice in estimarea riscului de disproporie cefalo-pelvica” – Graduate: Virca Ema – 2015.
9. “Evaluarea anatomo-imagistica a tractului genital feminin intern” – Graduate: Popa Alexandra Elena – 2016.
10. “Corelatii anatomo-imagistice ale aparatului genital feminin” – Graduate: Musat Andreea Alina – 2016.
11. “Corelatia anatomo-patologica in vascularizatia aparatului genital feminin” – Graduate: Valeria Morogai – 2016.
12. “Complicatiile malformatiilor congenitale uterine in sarcina” – Graduate: Bara Maria Alina – 2017.
13. “Corelatiile anatomo-clinice intre leziunile scuamoase intraepiteliale ale colului uterin si infectia cu HPV” - Graduate: Paulet Florina Paula – 2017.
14. “Aspecte anatomice si radiologice in patologia mamara” – Graduate: Coman Gabriela Laura – 2017.
15. “Contributii la studiul dezvoltarii si morfologiei bazinului osos” – Graduate: Stavarache Irina – 2017.
16. “Corelatii anatomo-imagistice in patologia rectala” - Graduate: Isabela Andreea Mihalcea – 2017.
17. “Evaluarea anatomo-clinica si imagistica a pacientelor cu neoplasm de col uterin” - Graduate: Laura Mihaela Boghian – 2017.
18. “Particularitati anatomice ale regiunii periampulare si impactul lor clinico-imagistic” – Graduate: Dragos Paul Hagi – 2017.
19. “Particularitati anatomo-clinice si imagistice ale uterului si ovarelor la pacientele cu endometrioza” – Graduate: Sima Antonia – 2018.

20. “Malformatii cardiace congenitale – diagnostic antenatal” – Graduate: Floriana Alexandra Gebac – 2018.
21. “Studiu anatomo-clinic si imagistic al anaexelor fetale la gravidele cu trombofilie” – Graduate: Raluca Stefan – 2018.
22. “Studiul anatomo-clinic si imagistic al malformatiilor reno-urinare” – Graduate: Stanciu Sorin-Andrei – 2018.
23. “Studiu anatomo-clinic al uterului. Patologie benigna si maligna de endometru” – Graduate: Dobre Madelaine Carmen – 2018.
24. “Contributii la studiul anatomo-clinic si imagistic al articulatiei soldului si implicatii in patologie” – Graduate: Negoita Alexandru Ionut – 2018.
25. “Studiul anatomic al fosei pterigopalatine cu implicatii in chirurgia endoscopica a bazei de craniu” – Graduate: Alexandra Vilaia – 2018.
26. “Contributii la studiul anatomo-clinic si imagistic al uterului la pacientele cu leiomioame” – Graduate: Andreea Mihaela Vasilescu – 2018.
27. “Explorarea anatomo-imagistica a tumorilor gastrice” - Graduate: Radu Filote – 2019.
28. “Evaluarea anatomo-imagistica a pacientelor cu leiomioame uterine tratate interventional” - Graduate: Pisteu Madalina – 2019.
29. “Studiul anatomo-imagistic al malformatiilor arterio-venoase cerebrale” - Graduate: Cojocaru Madalina – 2019.
30. “Studiul anatomo-clinic si imagistic al neoplasmului de col uterin” - Graduate: Diana Neculce – 2019.
31. “Studiul anatomo-imagistic al gravidelor cu placenta praevia” - Graduate: Neculai Sorina – 2020.
32. “Corelatii anatomo-imagistice ale vascularizatiei cerebrale” – Graduate: Olaru Adriana Mihaela – 2020.
33. “Studiul anatomo-clinic si imagistic al pacientelor cu tumori mamare” – Graduate: Stoica Dana Cristina – 2020.
34. “Studiul anatomo-imagistic al pacientelor cu neoplasm de ovar” – Graduate: Grosu Luminita Bianca – 2020.
35. “Contributii la studiul patologiei traumatice a cotului” - Graduate: Florin Baloiu – 2020.

36. “Corelatii anatomo-clinice si imagistice la pacientele diagnosticate cu sarcina extrauterina” – Graduate: Neamtu Maria Narcisa – 2020.
37. “Contributii la studiul anatomo-clinic si imagistic al pacientelor diagnosticate cu sindrom de ovar polichistic” – Graduate: Fintoiu (Velciu) Nicoleta Isabela – 2020.
38. “Studiul anatomo-imagistic al pacientelor cu leiomioame uterine” – Graduate: Ionescu Andreea – 2020.
39. “Studiul anatomo-imagistic al pacientelor cu neoplasm de col uterin” – Graduate: Frunza Elena-Evelina – 2020.
40. “Histeroscopia, metoda de diagnostic a patologiei maligne de endometru” – Graduate: Plesea Sabina Elisabeta – 2020.
41. “Impactul anomaliilor mulleriene asupra fertilitatii” – Graduate: Dragomir Daniela Georgiana – 2021.
42. “Contributii la studiul anatomo-imagistic al anexelor fetale” – Graduate: Julia Susane Balanescu – 2021.
43. “Contributii la studiul dezvoltarii intrauterine a unghiilor” – Graduate: Baloiu Andra-Ioana – 2022.
44. “Contributii macroscopice si microscopice privind dezvoltarea intrauterina a aparatului palpebral” – Graduate: Ioan-Andrei Petrescu – 2022.
45. “Contributii la studiul anatomo-imagistic al pacientilor cu neoplasm gastric” – Graduate: Buza Bogdan Gabriel – 2022.
46. “Contributii la studiul anatomo-imagistic al pacientilor cu neoplasm esofagian” – Graduate: Chiriac Andreea – 2022.
47. “Contributii la studiul anatomo-imagistic al pacientelor diagnosticate cu endometrioza” – Graduate: Dumitru Sorana – 2022.
48. “Alterarile anatomice ale cavitatii uterine la pacientele cu boala trofoblastica gestationala” – Graduate: Miruna Diana Vladica – 2022.
49. “Radioanatomia orbitei si continutul oribitar” – Graduate: Esanu Cristian Andrei – 2022
50. “Contributii la studiul clinic, anatomic si imagistic al pacientelor cu tumori mamare” – Graduate: Popa Matei Teofan – 2023.
51. “Aspecte anatomo-imagistice in cancerul de col uterin” – Graduate: Malacu Oana-Alexandra – 2023.

52. “Contributii la studiul anatomo-clinic si imagistic al pacientelor diagnosticate cu endometrioza” – Graduate: Oanta Natalia – 2023.
53. “Contributii la studiul anatomo-clinic si imagistic al pacientilor cu neoplasm de colon” – Graduate: Popescu Ana Maria – 2023.
54. “Contributii anatomo-imagistice privind studiul leiomioamelor uterine” – Graduate: Paris Oana-Maria – 2023.
55. “Contributii la studiul anatomo-clinic si imagistic al pacientelor diagnosticate cu infertilitate de cauza uterina si salpingiana” – Graduate: Paun Lorena – 2023.
56. “Aspecte microscopice in dezvoltarea intrauterina a nervului optic” – Graduate: Publik Mihai-Alin – 2024.
57. “Contributii la studiul anatomo-clinic si imagistic al pacientelor diagnosticate cu neoplasm de col uterin” – Graduate: Casian Alex-Valentin – 2024.
58. “Contributii la studiul anatomo-clinic si imagistic la pacientele cu cancer de endometru” – Graduate: Peteu Stefan – 2024.
59. “Contributii la studiul malformatiilor cardiace congenitale” – Graduate: Costachescu Sonia-Maria – 2024.
60. “Aspecte anatomice si chirurgicale in cancerul de col uterin” – Graduate: Manu Alina-Monica – 2024.
61. “Studiul anatomo-imagistic al pacientilor cu ulcer gastro-duodenal” – Graduate: Petre Iulia – 2024.
62. “Contributii la studiul anatomo-clinic si imagistic al pacientelor diagnosticate cu sindrom de ovar polichistic” – Graduate: Sandu Ioana – 2024.
63. “Variantele anatomice ale arterei renale si implicatiile lor in transplantul renal” – Graduate: Precup Andrei – 2024.

2.4 Coordination and participation in organizing student conferences and congresses

As I stated before, I supervise and coordinate three dissection teams made up of students and young resident doctors. The student members of my dissection and research teams constantly participate in student conferences and congresses, where they present the results of our studies. I encourage them to actively get involved in such extracurricular events to gain experience.

Students of my research team have participated in international student conferences and congresses:

1. "The effect of uterine artery embolization on dysfunctional bleeding in young patients diagnosed with multiple uterine fibroids" – 27th European Students Conference – Berlin 28 September – 1 October 2016, ID 567, pg 105 authors: Irina Stavarache, Bogdan Dorabat, Alina Burcuta, Doina Varlan, Ioana Paltineanu, coordinators: Monica Cirstoiu, **Octavian Munteanu**.
2. "Pregnancy related – stroke – a case report" - 25 European Stroke Conference 13-15 april 2016, Venice, Italy – published in Cerebrovascular diseases ISBN 978-3-318-05885-7, Vol. 41. 2016, pg 141, P119, authors: Irina Stavarache, Alina Burcuta, coordinators: **Octavian Munteanu**, Monica Cirstoiu.
3. "Management of a patient with rare intrauterine arterious-venous malformation" – Medicalis – International Congress of Medical Students and Young Health Professionals, 17 edition, 12-15 May 2016, Cluj-Napoca, Romania, pg 66, authors: Irina Stavarache, Alina Burcuta, coordinators: Monica Cirstoiu, **Octavian Munteanu**
4. "Anatomical basis of bleeding in traumatic pelvic fractures" – 18th European Congress of Trauma and Emergency Surgery, 7-9 May 2017, Bucharest, Romania – published in European Journal of Trauma and Emergency Surgery 2017, Springer Publishing House, Vol 43, Supplement 1: S1-S277, pg. 124 P 102, authors: Matei Bratu, Irina Stavarache, H Kurihara, Bogdan Diaconescu, Alina Burcuta, coordinators: **Octavian Munteanu**, Florin Filipoiu, Mircea Beuran.
5. "Post-partum life-threatening complications in a primiparous patients with severe preeclampsia" – 18th European Congress of Trauma and Emergency Surgesry, 7-9 May 2017, Bucharest, Romania – published in European Journal of Trauma and Emergency Surgery 2017., Editura Springer, Vol 43, Supplement 1: S1-S277, pg. 201 P 299, authors: Irina Stavarache, Alina Burcuta, coordinators:**Octavian Munteanu**, Monica Cirstoiu.
6. "The incidence and variability of the persistent metopic suture in a population of crania from the inter-war population" – The 8th Edition of IMSCB, December 4-8, 2024, Bucuresti, Romania, ISSN-L 2601 – 1743, authors: Maria Voinea, Andra Baloiu, coordinators: **Octavian Munteanu**.

Students of my research team have also participated in national student conferences and congresses:

1. "Managementul interventional al pacientei cu sarcina tubara necomplicata" - National Congress for Students and Young Doctors, 19th edition, 10-13.12.2015, Bucharest, Romania ISSN 2285 - 9438, pg. 28 - authors: Ioana Paltineanu, Madalina Prioteasa, coordinators: **Octavian Munteanu**, Monica Cirstoiu.
2. "Identificarea elemetelor morfofunctionale implicate in disfunctia erectila" 16th Congress of the Romanian Society of Anatomy, May 7-9, 2015, Bucharest, Romania ISBN-978-973-973-708-830-7 - authors: Miruna Radutoiu, Diana Ionela Munteanu, Irina Stavarache, Andrei Neagu, Madalina Ifrim, coordinators: Laura Stroica, Florin Filipoiu **Octavian Munteanu**.
3. "Regiunea preorbitara, nazala si orbita – studiu de anatomie comparata" - 16th Congress of the Romanian Society of Anatomy, May 7-9, 2015, Bucharest, Romania ISBN-978-973-973-708-830-7 - authors: Cristina Covalciuc, Luminita Grosu, coordinator: **Octavian Munteanu**.
4. "Raporturi cheie ale nervului facial la nivelul glandei parotide – metode de preventie a traumatismelor iatrogene in cursul parotidectomiilor" - 16th Congress of the Romanian Society of Anatomy, May 7-9, 2015, Bucharest, Romania ISBN-978-973-973-973-7073-708-830-7 - authors: Irina Stavarache, Alina Burcuta, coordinators: Ioan Bulescu, **Octavian Munteanu**.
5. "Adenocarcinom de col uterin la o pacienta cu fibrom uterin gigant" - National Surgical Conference 2015 on Eso-gastro-duodenal Surgical Pathology, October 14-17, 2015, Bucharest, Romania - author: Irina Stavarache, coordinators: **Octavian Munteanu**, Monica Cirstoiu.
6. "Studiu anatomo-clinic al dezvoltarii osului coxal" - 17th Edition of the National Congress of Anatomy with international participation, May 19-21, 2016, Galati, Romania, ISBN 978-606-669-180-2, pg: 139-140, authors: Florin Baloiu, Cristina Covalciuc, Maria Neamtu, Irina Stavarache, coordinators: **Octavian Munteanu**, Monica Cirstoiu.
7. "Managementul fatului cu boala polichistica renala – prezentare de caz" – 17th Edition of the National Congress of Anatomy with international participation, May 19-21, 2016, Galati, Romania, ISBN 978-606-669-180-2, pg: 171-172, authors: Maria Neamtu, Irina Stavarache, Florin Baloiu, Luminita Grosu, coordinators: **Octavian Munteanu**, Monica Cirstoiu.
8. "Interdisciplinary management of a patient with a rare mammary tumor" – Congress of the University of Medicine and Pharmacy “Carol Davila”, 2-4 June 2016, Bucharest, Romania

published in Maedica Journal of Clinical Medicine, Vol 11, Supplement 2016, pg 142-143 – authors: Ioana Paltineanu, Irina Stavarache, coordinators: **Octavian Munteanu**, Dragos Davitoiu, Maria Sajin, Monica Cirstoiu.

9. "Hernia diafragmatica congenitala – prezentare de caz" – 17th National Congress of the Romanian Society of Anatomy with international participation May 11-13, 2017, Iasi, Romania ISBN 978-606-54444-450-8, pg. 79-80 - authors: Maria Neamtu, Irina Stavarache, Alina Burcuta, Sorin Vasilescu, Florin Filipoiu, coordinators: Monica Cirstoiu, **Munteanu Octavian**.
10. "Repere anatomice utile in chirurgia fosei craniene mijlocii si a sinusului cavernos" – 17th National Congress of the Romanian Society of Anatomy with international participation May 11-13, 2017, Iasi, Romania ISBN 978-606-54444-450-8, pg. 28 - authors: Cristina Covalciuc, Luminita Grosu, coordinator: **Munteanu Octavian**.
11. "Imagistic and morphological study of an anecephalic fetus – a case report" - 20th Congress of the Romanian Society of Anatomy with international participation May 16-18, 2019, Constanta, Romania, ISSN 2668-3105, authors: Neamtu Maria, Irina Stavarache, coordinators: Monica Cirstoiu, **Octavian Munteanu**.

The following researches, presented by my students at national and international conferences, were awarded:

1. **Second Prize** in the Poster section of the National Congress for Students and Young Doctors, 19th edition, December 10-13, 2015, Bucharest, Romania for the paper "Managmentul interventional al pacientei cu sarcina tubara necomplicata" - authors: Ioana Paltineanu, Madalina Prioteasa and coordinators: Monica Cirstoiu, **Octavian Munteanu**.
2. **Second Prize** at the 17th International Medicalis Congress for Medical Students and Young Health Professionals for the paper "Managementul unei paciente cu o malformație arteriovenoasă intrauterină rară" authors Irina Stavarache, Alina Burcuta and coordinators **Octavian Munteanu**, Monica Cirstoiu.
3. **Third Prize** in the oral communication session II at the 18th National Congress of the Romanian Society of Anatomy, Iasi, Romania, May 11-13, 2017, for the paper "Hernie diafragmatica congenitala" - authors: Maria Neamtu, Irina Stavarache, Alina Burcuta, Sorin Vasilescu, Florin Filipoiu, Monica Cirstoiu, **Octavian Munteanu**.

4. **Second Prize** in the oral communication session II, at the XVIII National Congress of the Romanian Society of Anatomy, Iasi, Romania, May 11-13, 2017, for the paper "Hernia fiziologica – proiectie holografica" - authors Bogu CV, Serbanescu AA, **Munteanu O.**
5. **First Prize** in the Oral Communication Session I, at the XVIII National Congress of the Romanian Society of Anatomy, Iasi, Romania, May 11-13, 2017, for the paper "Repere anatomice utile in chirurgia fosei craniene mijlocii si a sinusului cavernos" - authors: Cristina Covalciuc, Luminita Grosu, **Octavian Munteanu.**
6. **First Prize** in the B Session of oral presentations, within the XXII National Congress of the Romanian Society of Anatomy with international participation, May 12-14, 2022, Brasov, Romania, for the paper "Transnasal endoscopic approach of selle and parasellar tumors" - authors: Alexandru Mocanu, Miruna Matei, Olteanu Maria, Bogdan Mocanu, **Octavian Munteanu**, Sergiu Stoica.
7. **Second Prize** for the paper "The incidence and variability of the persistent metopic suture in a population of crania from the inter-war population", authors: Maria Voinea, Andra Baloiu, **Octavian Munteanu** in the Fundamental Sciences Section of the IMSCB Congress - 8th edition, December 4-8, 2024, Bucharest, Romania.

Therefore, I can confidently state that the research activity carried out by the student teams I coordinate is valuable for the academic community.

2.5 Participation in examination committees

2.5.1 Admission Examination to Faculty of Medicine, „Carol Davila” University of Medicine and Pharmacy

I have participated in the admission examination to Faculty of Medicine within „Carol Davila” University of Medicine and Pharmacy, as it follows:

1. Member of the Supervisor Commission at the Admission Examination to the Faculty of Medicine within „Carol Davila” University of Medicine and Pharmacy – session July 2013.
2. Member of the Supervisor Commission at the Admission Examination to the Faculty of Medicine within „Carol Davila” University of Medicine and Pharmacy – session July 2014.

2.5.2 Bachelor Examination at Faculty of Medicine, „Carol Davila” University of Medicine and Pharmacy

I have participated in the Bachelor Examination at the Faculty of Medicine within „Carol Davila” University of Medicine and Pharmacy, as it follows:

1. Member of the Supervisor Commission at the Bachelor's Exam at the Faculty of Medicine within „Carol Davila” University of Medicine and Pharmacy – session 25.02.2013.
2. Secretary in the Examination Committee of Bachelor's Thesis, Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, Bucharest, September 2017.
3. Secretary in the Examination Committee of Bachelor's Thesis, Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, Bucharest, September 2018.
4. Member of the 3rd Examination Committee of Bachelor's Thesis, Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, Bucharest, September 2021.
5. Member of the 3rd Examination Committee of Bachelor's Thesis, Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, Bucharest, September 2022.
6. Member of the 3rd Examination Committee of Bachelor's Thesis, Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, Bucharest, September 2023.
7. Member of the 3rd Examination Committee of Bachelor's Thesis, Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, Bucharest, September 2024.

2.5.3 National Residency Examination

I have participated in the National Residency Examination, as it follows:

1. Member of the Supervisor Commission at the National Residency Examination – session 21.11.2010.
2. Member of the Supervisor Commission at the National Residency Examination – session 25.11.2012.

3. Member of the Supervisor Commission at the National Residency Examination – session 17.11.2013.
4. Member of the Supervisor Commission at the National Residency Examination – session 23.11.2014.
5. Member of the "Central Commission of Specialists for Elaboration of Topics for the National Residency Examination " – session 15.11.2015.

2.5.4 Examination committees for promotion exams

I have participated in the following committees for promotion exams:

1. Secretary in the Examination Committee 2 – Preclinical within the Doctoral Studies Admission Competition, September 2015 session.
2. Member of the Examination Committee for the position of Assistant Lecturer in the Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, session II, 2020-2021.
3. Member of the Examination Committee for the position of Assistant Lecturer in the Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, session I, 2021-2022.
4. Member of the Examination Committee for the position of Senior Lecturer in the Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, session I, 2021-2022.
5. Member of the Pre-Defense Committee of the doctoral thesis "Aspecte bio-antropologice ale unor potentiali factori de risc asociati cancerului glandei mamare" – PhDc Monica Maria Petrescu 03.10.2022.
6. Member of the Examination Committee for the position of Senior Lecturer in the Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, session I, 2023-2024.
7. Member of the Examination Committee for the position of Assistant Lecturer in the Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, session II, 2023-2024.

8. Member of the Examination Committee for the position of Associate Assistant Lecturer in the Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, session II, 2023-2024.
9. Member of the Examination Committee for the position of Referent III with secondary education in the Anatomy Discipline, Department II, Morphological Sciences, "Carol Davila" University of Medicine and Pharmacy, according to decision 1187/28 February 2024.

2.6 Administrative and managerial activities

During the 2020 elections within the "Carol Davila" University of Medicine and Pharmacy I was a member of the Electoral Commission of the Voting Sections - Faculty of Medicine.

Between May 1st 2022 and May 31th 2022 I was the Head of the Obstetrics and Gynecology Department III of University Emergency Hospital in Bucharest.

Currently, I have the following administrative positions:

1. Member of the Central Electoral Bureau – representative of the Faculty of Medicine – "Carol Davila" University of Medicine and Pharmacy – since the elections in 2024.
2. Member of the Analysis Committee for obtaining medical reports for the application for the social medical scholarship by students of the "Carol Davila" University of Medicine and Pharmacy.
3. Member of Ethics Council of University Emergency Hospital in Bucharest.

3. PROFESSIONAL ACTIVITY AND ACHIEVEMENTS

3.1 Professional career

3.1.1 As a physician in Obstetrics and Gynecology

I was born in Bucharest, in 1984, in a family of physicians – both of my parents are paediatricians. My passion for *Medicine* was cultivated by my father who used to tell me, starting from gymnasium, that practicing *Medicine should* not be seen as just a job, but *Art and Science* at the same time.

I graduated from “Mihai Eminescu” National College in Bucharest, Informatics – Mathematics - Intensive English profile, in June 2003 and received my Baccalaureate diploma. In October 2003 I started my medical studies at the Faculty of Medicine within “Carol Davila” University of Medicine and Pharmacy in Bucharest.

In September 2009 I received the Master`s Degree of Medical Doctor, after graduating „Carol Davila” University of Medicine and Pharmacy, Bucharest, Faculty of Medicine – position 11 of 554 of graduates with an overall score of 9.72.

On November 15th 2009, I became a resident physician in Obstetrics and Gynecology following the National Residency Examination, with a score of 869 points - position 63 of 4460 candidates.

I trained as a resident physician at the Obstetrics and Gynecology Department of University Emergency Hospital in Bucharest from January 1st 2010 to December 31th 2014. I had the opportunity to have Prof. Univ. Dr. Monica Mihaela Cirstoiu as my residency Mentor, who instilled in me the love and passion for *Obstetrics and Gynecology*. Another decisive factor in my professional training was that I worked in a level 3 maternity ward, of the largest interdisciplinary emergency hospital in Romania – the University Emergency Hospital in Bucharest.

I was confirmed as a specialist physician in Obstetrics and Gynecology by M.S. Order. No. 1/2015, as a result of passing the specialist examination, with an overall score of 9.95, held in October 2014.

In January 2015 I started working as a specialist physician in Obstetrics and Gynecology, in the Obstetrics and Gynecology Department of University Emergency Hospital in Bucharest, after competitive examination.

From January 1st 2015 to October 31th 2020 I worked as a specialist physician in Obstetrics and Gynecology, in the Department of Obstetrics and Gynecology III of University Emergency Hospital in Bucharest, where I deployed: clinical medical activity, continuous medical education and clinical research activity.

After I became a specialist physician in Obstetrics and Gynecology, in 2014, I continued to study, in order to perform in my specialty. Between 03-06.09.2015 I attended the professional training lecture for specialists in Obstetrics-Gynecology, organized within the project entitled “Imbunatatirea calitatii vietii copiilor cu afectiuni cardiovasculare prin formarea profesională specializată a personalului medical pediatric”, POSDRU/179/3.2/S/151626, Constanta, Romania.

In October 2015 I obtained the qualification for Cytology and Diagnostic Colposcopy. In order to improve my colposcopic skills and the management of my patients with premalignant cervical lesions induced by HPV infection I attended the following medical lectures, conferences and symposiums:

1. The Second Congress of Human Papilloma Virus "HPV- De la biologie moleculara la clinica – Abordare interdisciplinara", June 18-20, 2015, Bucharest, Romania.
2. Interdisciplinary Symposium "Vaccinurile si terapiile antivirale medicamentoase moderne – de la testare la includerea in programe nationale de sanatate publica", 30.10.2015, Bucharest, Romania.
3. The Third National Congress on HPV "HPV – de la biologie moleculara la clinica. Abordare interdisciplinara", June 9-10, 2016, Sinaia, Romania.
4. The IVth National HPV Congress, June 14-15, 2018, Sinaia, Romania.
5. Lecture „Vaccinarea in timpul sarcinii” 10.02.2022 Bucharest, Romania.

In October 2015 I obtained the qualifications for Ultrasound in Obstetrics and Gynecology. In order to improve my capabilities to perform ultrasonography to the standards imposed by ISUOG (International International Society of Ultrasound in Obstetrics and Gynecology) I attended the following medical lectures, conferences and symposiums:

1. The 9th Congress of MEDUOG joint with the 1st Congress of SRUOG, Bucharest, Romania, 24-25 October 2012.
2. The 2nd Congress of the Romanian Society of Ultrasonography in Obstetrics-Gynecology, Iasi, Romania, April 2-3, 2014.

3. The 6th Romanian Ian Donald Course, 22-23.10.2014, Cluj-Napoca, Romania.
4. ISUOG approved lecture on "Ultrasound and other advanced techniques in prenatal diagnosis" 13th edition of the National Conference "Vasile Dobrovici" and the 4th Congress of the Romanian Society of Ultrasonography in Obstetrics and Gynecology, April 16, 2016, Iasi, Romania.
5. Samsung Ultrasound Symposium and specific training related to the new performance in 4D-5D ultrasound, June 13, 2016, Bucharest, Romania.
6. The 5th Congress of the Romanian Society of Ultrasonography in Obstetrics and Gynecology and ISUOG approved lecture on "3D in fetal medicine: why, how and when?", April 20-22, 2017, Targu Mures, Romania.
7. Pre-congress lecture "School of pelvic floor ultrasonography" September 7, 2017, Eforie Nord, Romania.
8. The 6th Congress of the Romanian Society of Ultrasonography in Obstetrics and Gynecology, May 16-17, 2018, Bucharest, Romania.

Therefore, since 2019 I am a member of the International Society of Ultrasound in Obstetrics and Gynecology.

In the last 10 years, the progress of minimally invasive surgical techniques has changed the surgical management of many gynecological pathologies. This is why, in May 2016 I obtained the qualification for Hysteroscopy and in November 2017 I obtained the qualification for Gynecological Laparoscopy.

However, in order to improve my skills and to be up to date with the newest and most innovative surgical techniques used in gynecology and uro-gynecology, I attended the following medical lectures, conferences and symposiums:

1. Lecture „Diagnosticul si tratamentul tulburarilor de statica pelvica in acord cu teoria integrativa” 20-21 aprilie 2016, Bucuresti, Romania.
2. NPWT expert meetings 2016 Obstetrics and Gynecology Surgery Achieving predictable outcomes, 9-10 May 2016, London, United Kingdom.
3. Pre-congress lecture course "Histerectomia prin tehnici minim invazive " during the 13th National Congress of Urogynecology, September 29 - October 01, 2016, Brasov, Romania.
4. The 13th National Congress of Urogynecology, September 29 - October 01, 2016, Brasov, Romania.

5. International Trauma Workshop 4-5 December 2017, Bucharest, Romania.
6. Conference „Tratamentul actual al tumorilor solide – Zilele Medicale si Stiintifice ale I.O.B.”, April 24, 2017, Bucharest, Romania.
7. The 16th National Congress of the Romanian Society of Urogynecology, October 18, 2018, Bucharest, Romania.
8. Lecture "Surgical stapling & leak prevention day" - March 19, 2019, Bucharest, Romania.
9. Gynecology Aesthetics Course, October 17, 2019, Bucharest, Romania.
10. Practical training workshop in molecular biology technologies for breast cancer diagnosis - project PN-III-P1.2-PCCDI-2017-0833, Bucharest, Romania.
11. 3rd SRGE International Conference of Aesthetic Gynecology and Regenerative Medicine, 03.09.2022, Bucharest, Romania.
12. Workshop "Elemente de patologie uroginecologica si tehnici chirurgicale de baza in bolile planseului pelvin", May 15-15, 2024, Bucharest, Romania.

Infertility is an important public health issue, which affects an increasing number of couples, who resort to assisted human reproduction techniques for this reason. Specialists in such techniques require a high level of training in endocrinological gynecology because serum levels of some hormones influence those of others. Knowledge of the methods used and also the management of complications, which can often be life-threatening, are mandatory requirements for a modern gynecologist. Therefore, I have attended the following medical lectures, conferences and symposiums in order to gain an advanced understanding of conception, infertility and contraception:

1. The 5th Congress of the Romanian Society of Endocrinologic Gynecology, Sinaia June 10-12, 2010.
2. Individualized medical approach in anovulatory infertility, Bucharest 26 March 2011
3. The 6th Congress of the Romanian Society of Endocrinologic Gynecology, Bucharest September 22-24, 2011.
4. The 7th Congress of the Romanian Society of Endocrinologic Gynecology with international participation, Sinaia, June 6-8, 2013.
5. The 8th Congress of the Romanian Society of Endocrinologic Gynecology with international participation, Sinaia, June 12-14, 2013.

6. The 9th Congress of the Romanian Society of Endocrinologic Gynecology with international participation, Sinaia, June 17-19, 2013.
7. Symposium "Femeia moderna intre conceptie si contraceptie" March 24, 2016, Bucharest, Romania.
8. The 16th National Conference on Sexual Medicine with international participation, September 30 - October 1, 2016, Bucharest, Romania.
9. The 2nd National Conference of the Association for Human Reproduction with international participation "Noutati si perspective in sanatatea femeii si a cuplului cu infertilitate", June 10-11, 2016, Sinaia, Romania.
10. Symposium „Osteoporoza – de la studii clinice la practica medicala” May 15, 2017, Bucharest, Romania.
11. The 16th National Conference on Sexual Medicine with international participation, October 27-29, 2017, Poiana Brasov, Romania.
12. Lecture „Tratamentul infertilitatii cuplului si reproducere umana asistata - FIV”, 25 September 25, 2017 – January 25, 2018, Bucharest, Romania.
13. Ballerine IUD insertion workshop, 04.11.2020, Bucharest, Romania.
14. Online Lecture „Menopauza si alternative terapeutice” 20.07.2022-20.01.2023.

In November 2018 I obtained the qualifications for Infertility and Techniques of In vitro Fertilization.

Maternal-fetal medicine is a subspecialty of Obstetrics. The correct management of patients with high-risk pregnancies requires extensive theoretical and practical training. To perform in this field as well, I attended the following medical lectures, conferences and symposiums:

1. The 11th World Congress of Perinatal Medicine, Moscow, Russian federation 19 – 22.06.2013.
2. The 12th Edition of the National Conference "Vasile Dobrovici" Medical Days - Romanian-French Days of Maternal-Fetal Medicine, Iasi, Romania, April 4-5, 2014.
3. Days of the Institute for Mother and Child Protection "Prof. Dr. Alfred Rusescu", Scientific Session Obstetrics-Gynecology, Maternal-Fetal Medicine, Neonatology and Pediatrics, 10-12.12.2015, Bucharest, Romania.
4. XXVIth European Congress – Perinatal Medicine, 5-8 September 2018, St Petersburg, Russia.
5. The 1st International Perinatal Total Health Congress, 27 June 2018, Sinaia, Romania.

6. Lecture of Maternal-Fetal Medicine within the Obstetrics-Gynecology Discipline - Elias University Emergency Hospital, 08.10.2018 - 31.03.2019, Bucharest, Romania.

In May 2019 I obtained the qualification for Maternal-Fetal Medicine.

In the July 2020 session, I took and passed the examination for primary physician, with an overall score of 9.85 and was confirmed as senior physician in Obstetrics and Gynecology by M.S. Order. No. 1541 of 03.09.2020. Since then, I work as a senior physician in Obstetrics and Gynecology, in the Department of Obstetrics and Gynecology of University Emergency Hospital in Bucharest, where I deploy: clinical medical activity, continuous medical education and clinical research activity.

Between May 1st 2022 and May 31th 2022 I was the Head of the Obstetrics and Gynecology Department III of University Emergency Hospital in Bucharest.

Competences:

- Ultrasonography in Obstetrics and Gynecology
- Gynecological Laparoscopy
- Cytology and Diagnostic Colposcopy
- Diagnostic and Operative Hysteroscopy
- Infertility and Techniques of In vitro Fertilization
- Maternal-Fetal Medicine
- Good Clinical Practice (NIDA Clinical Trials Network)

As a senior physician in Obstetrics and Gynecology, in the Department of Obstetrics and Gynecology of University Emergency Hospital in Bucharest, my activity consists of:

- Diagnosis and treatment of gynaecological pathologies.
- Monitoring and therapeutic management of high-risk pregnancies.

Due to the multi-disciplinary profile of University Emergency Hospital in Bucharest, most of my patients have multiple comorbidities. In the last 10 years I have been monitoring pregnancies of patients with severe diseases such as: stroke, acute myocardial infarction, chronic kidney disease, cerebral arteriovenous malformations, cerebral aneurysms, autoimmune diseases (systemic lupus erythematosus, Sjogren's syndrome, dermatomyositis), neoplasms (gastric neoplasm, lung neoplasm, colon neoplasm), complex hematological pathologies (idiopathic thrombocytopenic purpura, porphyria, polycythemia vera), leukemias

(chronic myeloblastic leukemia, acute lymphocytic leukemia), pulmonary fibrosis, sarcoidosis, Ewing sarcoma, osteosarcomas, patients with previous kidney and liver transplants.

I am a founding member and member of the Expert Council of the Romanian Lynch Syndrome Society. I am currently monitoring 24 patients diagnosed with Lynch syndrome.

Due to the fact that I practice a surgical specialty in which *pain* is most often the central symptom in numerous pathologies, both obstetric and gynecological, I have improved in integrating the pathophysiological mechanisms of pain occurrence for adequate management by following numerous medical lectures, conferences and symposiums:

1. Congress of the Romanian Association for the Study of Pain on "Durerea Viscerala", National Institute of Statistics, Bucharest, Romania, 01-02.11.2013.
2. Congress of the Romanian Association for the Study of Pain with the theme "Durerea Neuropata", National Institute of Statistics, Bucharest, Romania, 30-31.10.2014.
3. Congress of the Romanian Association for the Study of Pain "Durerea articulara in context multidisciplinar", October 28-29, 2016, Bucharest Romania.
4. Cursul precongres „Durerea articulara in context multidisciplinar” din cadrul Congresul Asociatiei Romane pentru Studiul Durerii „Durerea articulara in context multidisciplinar”, 27 octombrie 2016, Bucuresti Romania.
5. National Conference of the Romanian Association for the Study of Pain with the theme "Durerea postoperatorie si posttraumatica – abordare multidisciplinara", October 26-27, 2017, Bucharest, Romania.
6. Conference "Durera Cronica Pelvina", 19-20.04.2019, Bucharest, Romania.

I am an active member of the Romanian Association of Pain Study.

Throughout my professional career, I attended other 43 medical lectures, conferences and symposiums on Obstetrics and Gynecology.

In the last 10 years I have also performed complex gynecological interventions (genital neoplasm or forms of deep pelvic endometriosis) on patients with multiple associated pathologies sent from lower-grade maternity hospitals in Bucharest or from hospitals in the region.

To date, I have provided medical care to 7469 patients, hospitalized in the Obstetrics-Gynecology Department of the University Emergency Hospital in Bucharest: 2015 – 517 patients, 2016 – 923 patients, 2017 – 844 patients, 2018 – 752 patients, 2019 – 1058 patients,

2020 – 362 patients, 2021 – 500 patients, 2022 – 620 patients, 2023 – 868 patients, 2024 – 715 patients and until March 2025 – 310 patients.

Since 2015 I have performed more than 1300 high difficulty gynecological procedures, as the lead surgeon. These interventions were performed classically, laparoscopically or through a hysteroscopic approach.

3.1.2 As a teacher in the Discipline of Anatomy

My passion for *Anatomy* was born in the fall of 2003, at the end of the third Anatomy lecture, when Prof. Univ. Dr. Alexandru Teodor Ispas told us, the students that were attending, that some of us would become infected with a microbe called "*Anatomy*" and would remain in the Department of Anatomy.

In October 2004, I started attending the lectures given to the first year students by my group assistant, Senior Lecturer Eugen Tarța-Arsene M.D. Ph.D. Under his coordination I began to perform the first dissections on formalized cadavers in the Anatomy Department of “Carol Davila” University of Medicine and Pharmacy in Bucharest.

In October 2004, I also started attending the lectures given to the first year students by my professor Prof. Univ. Dr. Alexandru Teodor Ispas in order to perfect my theoretical concepts. Prof. Univ. Dr. Alexandru Teodor Ispas is one of my mentors, a model of man, physician and teacher.

I continued my theoretical and practical activities in the Anatomy Department of “Carol Davila” University of Medicine and Pharmacy in Bucharest in my second year of college. I started performing more complex dissections on formalized cadavers and fetuses.

Since 2005, I have been working as a Volunteer University Tutor in the Anatomy Department of “Carol Davila” University of Medicine and Pharmacy in Bucharest, with the approval of the Head of Department. I have perfected both my dissection techniques and my teaching methods to students.

In 2008 I attended the “103rd Annual Meeting of The Anatomische Gesellschaft”, in Innsbruck, Austria in order to perfect my techniques for analyzing and dissection of the central nervous system and its vascularization.

In 2009, I defended my Diploma Thesis in the Anatomy Department of the “Carol Davila” University of Medicine and Pharmacy in Bucharest – an extensive study of

Comparative Anatomy of the pectoral region. I continued volunteering in the Anatomy Department during my first year of residency in the Obstetrics-Gynecology specialty. I began to perform complex dissections on embryos and fetuses with variable gestational ages, using the dissecting microscope.

In 2011, I began my doctoral research study in the Field of Medicine, Anatomy Specialty under the guidance of Prof. Univ. Dr. Alexandru Teodor Ispas and I worked as an Associate Assistant in the Anatomy Department of the "Carol Davila" University of Medicine and Pharmacy in Bucharest (hourly payment).

In 2012, I was appointed, by competitive examination, Associate Assistant Lecturer, in the Anatomy Department, Faculty of Medicine of the "Carol Davila" University of Medicine and Pharmacy in Bucharest. I continued performing more and more complex dissections on embryos, fetuses and on adult formalized cadavers.

In June 2014, I was co-opted as a member of the target group of the project "Cercetarea doctorală și postdoctorală prioritate a învățământului superior românesc (Doc-Postdoc ", Contract identification number: POSDRU/159/1.5/S/137390, with the research topic: Developing a protocol for early assessment of the risk of cephalopelvic disproportion.

In June 2015, I publicly defended my doctoral thesis entitled "Reevaluation of the criteria for establishing the diagnosis of cephalopelvic disproportion and fetal extraction by cesarean section", following which I received the title of Doctor in Medical Sciences. In the same year, I was appointed, by competitive examination, Assistant Lecturer for an indefinite period, in the Anatomy Department, Faculty of Medicine of the "Carol Davila" University of Medicine and Pharmacy in Bucharest.

Between 2015 and 2021 I continued teaching practical and theoretical anatomy lectures to the 1st and 2nd year medical students. By 2020, I had performed all the didactic dissections on formalized cadavers in all anatomical regions of the human body. However, in order to stay up-dated, improve my practical and theoretical skills, I attended the following medical lectures, conferences and symposiums:

1. The 11th Congress of the Romanian Society of Anatomy with International Participation May 12-15, 2010, Constanta, Romania.
2. The 12th Congress of the Romanian Society of Anatomy with International Participation, June 9-11, 2011, Cluj-Napoca, Romania.

3. The 13th Congress of the Romanian Society of Anatomy with International Participation, May 17-19, 2012, Constanta, Romania.
4. The 14th Congress of the Romanian Society of Anatomy with International Participation, May 14-16, 2013, Timișoara, Romania.
5. The 15th Congress of the Romanian Society of Anatomy, May 15-17, 2014, Craiova, Romania.
6. The 16th Congress of the Romanian Society of Anatomy, May 7-9, 2015, Bucharest, Romania.
7. The 17th Congress of the Romanian Society of Anatomy, “Anatomia – fundamentul studiului imagistic”, May 18-21, 2016, Galati, Romania.
8. The 18th Congress of the Romanian Society of Anatomy with International Participation, May 11-13, 2017, Iasi, Romania.
9. Lecture „Bazele anatomice pentru injectarea acidului hialuronic la nivelul fetei”, 08.03. 2019, Bucharest, Romania.
10. Lecture „Interactiuni ale Anatomiei cu specialitatile medicale”, 11-12.05.2022, Brasov, Romania.
11. The 20th Congress of the Romanian Society of Anatomy with International Participation, May 16-18, 2019, Constanta, Romania.
12. The 22nd Congress of the Romanian Society of Anatomy with International Participation, May 12-14, 2022, Brasov, Romania.

I participated, along with my colleagues from the Anatomy Department of “Carol Davila” University of Medicine and Pharmacy in Bucharest in organizing the "Surgical Anatomy Club" for the medical students in years II-VI. I was responsible for teaching a lecture regarding anatomical landmarks in Obstetrics and Gynecology. Although the club was highly successful it was discontinued due to the COVID-19 pandemic.

I actively participated in many interdisciplinary workshops organized by the Anatomy Department of “Carol Davila” University of Medicine and Pharmacy in Bucharest such as: International Trauma Workshop, Neuroanatomy, Injectology or Cervical Region.

I was responsible for demonstrating key anatomical relations, on formalized cadavers, to specialists (specialist and senior physicians) at the Urogynecology competency lectures.

In 2021, I was appointed, by competitive examination, Senior Lecturer in the Anatomy Discipline, Department II Pre-clinic, Morphological Sciences, Faculty of Medicine of the “Carol Davila” University of Medicine and Pharmacy in Bucharest. Since then I have been

teaching both practical anatomy lectures and lectures to the 1st and 2nd year medical students. I present all the anatomy of the human body in theory, but I also perform dissections with the students in order to train their personal practical skills. I also teach 1st and 2nd year medical students the entire intrauterine development of the embryo and subsequently fetus.

Since 2020, I have started collaborating with researchers from the "Francisc I. Rainer", Institute of Anthropology, within the Romanian Academy and I participated in all the symposia organized by them.

In 2022 I received „Gradation of Merit” by competition for teaching, administrative, research and publishing activity within the Faculty of Medicine of the "Carol Davila" University of Medicine and Pharmacy.

In 2024 I encouraged and supported a group of students to organize the "Obstetrics, Gynecology and Neonatology Club". The club is very successful and many students from all years have joined it.

I am currently responsible for the project entitled “Digitalization of the “Francisc I. Rainer” craniological collection”, a collaboration between the Discipline of Anatomy, Department II Preclinical Morphological Sciences within the Faculty of Medicine of the “Carol Davila” University of Medicine and Pharmacy, the Clinical Laboratory of Radiology-Medical Imaging within the University Emergency Hospital Bucharest and the Department of Paleoanthropology/Human Osteology of the “Francisc I. Rainer” Institute of Anthropology, within the Romanian Academy. The project aims to digitalize the “Francisc I. Rainer” craniological collection by inventorying and developing the largest database in the world (approximately 6500 human skulls from the interwar period) in DICOM (Digital Imaging and Communications in Medicine) format. The project is ongoing and approximately 600 crania have been scanned so far.

3.2 Examination committees

Throughout my professional career, I have been a member of the following examination committees for filling positions in the Ministry of Health network in Romania:

1. Secretary in the Examination Commission within the competition for the vacant position of a physician, in the specialty of Obstetrics-Gynecology at the Obstetrics-Gynecology Department II of University Emergency Hospital Bucharest - published in “Viata Medicala” no. 19/08.05.2015.

2. Secretary in the Examination Commission within the competition for the occupation of two vacant positions of physician, in the specialty of Obstetrics-Gynecology at the Obstetrics-Gynecology Department I of University Emergency Hospital Bucharest - published in "Viata Medicala" no. 28/10.07.2015.
3. Secretary in the Examination Commission within the competition for the vacant position of a physician, in the specialty of Obstetrics-Gynecology at the Obstetrics-Gynecology Department I of University Emergency Hospital Bucharest - published in "Viata Medicala" 22973/11.05.2016.
4. Secretary in the Examination Commission within the competition for the vacant position of a physician, in the specialty of Obstetrics-Gynecology at the Obstetrics-Gynecology Department III of University Emergency Hospital Bucharest - published in "Viata Medicala" no. 40/30.09.2016.
5. Member of the Complaints Resolution Committee for filling vacant positions at the Obstetrics-Gynecology Department of University Emergency Hospital Bucharest -decision 1251/24.05.2021.
6. Member of the Examination Commission (representative of the C.M.M.B.) for the position of Obstetrics-Gynecology Specialist at the External Department of the University Emergency Hospital Bucharest - Chitila Clinic - Obstetrics-Gynecology Cabinet according to decision 2237/05.07.2024.

4. ACADEMIC CAREER DEVELOPMENT PLANS

4.1 Plans for the improvement of didactic activity

In terms of didactic activity I have formulated several improvement objectives:

4.1.1 Objectives centered on the educational process for students of the "Carol Davila" University of Medicine and Pharmacy

- continuing, together with the Head of the Anatomy Discipline, Prof. Univ. Dr. Florin Mihail Filipoiu, to review and harmonize current curricula with European standards;
- promoting student-centered teaching methods, involving students interactively in the learning process (both theoretical and practical - through dissection);
- accepting and encouraging student questions in the academic process;
- actively motivating students to participate in student scientific events at national and international level;
- use of modern presentation techniques combined with classical techniques (video, IT, web) e.g. - use of video footage in order to exemplify the signs and symptoms of nerve damage;
- collaboration with the Simulation Department of the Innovation and E-health Center of “Carol Davila” University of Medicine and Pharmacy in Bucharest to exemplify complex physiological phenomena (e.g. – obstetrical maneuvers);
- facilitating understanding through conclusive explanations and practical demonstrations;
- as for the bachelor theses that I will coordinate, I intend to focus on topics relevant to the increasing scientific and research demands;
- as until now, I will continue to stimulate the first and second year students to participate and acquire practical skills in the summer practicum in the Obstetrics-Gynecology Department of the University Emergency Hospital in Bucharest where I work;
- performing dissections with students to promote their practical skills;
- encouraging student dissection teams in order to obtain results worthy of presentation at national and/or international scientific events;
- encouraging and supporting my students to organize create a student-club “Essential Notions of Anatomy in Obstetrics and Gynecology” which will be addressed to all students of the "Carol Davila" University of Medicine and Pharmacy. This student-club will allow

collaborations between students of the “Surgical Anatomy Club” and the ones in the “Obstetrics, Gynecology and Neonatology Club”, as well as the formation of interdisciplinary relationships between members of the disciplines of Anatomy, Obstetrics and Gynecology and Surgery;

- promoting and encouraging multi-center collaboration among students, with the aim of permanent exchange of experience and information;
- promoting and stimulating clinical (Obstetrics-Gynecology and Clinical Embryology) and fundamental (Anatomy and Embryology) research activities;
- I will continue to participate together with my colleagues in the Anatomy Department of the "Carol Davila" University of Medicine and Pharmacy in coordinating and developing modern Anatomy textbooks to be used by students in their preparation.

4.1.2 Objectives centered on the educational process for resident physicians and specialists in Obstetrics and Gynecology

I propose a strong collaboration with the Department of Surgical Techniques within the Discipline of Anatomy of "Carol Davila" University of Medicine and Pharmacy in order to:

- elaborate interactive courses for residents physicians in Obstetrics and Gynecology;
- promote dissection and perform "key" procedures directly on the cadaver during courses (e.g. - maneuver of uncrossing the ureter from the uterine artery or dissection of the obturator lymph node group);
- use of modern presentation techniques combined with classical techniques (video, IT, web) (e.g. highlighting the dissection of inter-aortic-caval lymph node groups intra-operatively directly in the dissection room or operating room);
- introduce lectures on essential concepts of Anatomy in Obstetrics (e.g. - anatomical landmarks for assisting in childbirth in pelvic presentation).

4.1.3 Didactic collaborations

4.1.3.1 With the professional societies of Obstetrics and Gynecology

I intend to have a close collaboration with the 13th Clinical Department of Obstetrics and Gynecology of the "Carol Davila" University of Medicine and Pharmacy, the Romanian

Society of Obstetrics-Gynecology, the Romanian Society of Urogynecology and the Romanian Society of Minimally Invasive Surgery in order to:

- organize training courses and workshops for residents physicians, specialists physicians and even senior physicians of Obstetrics-Gynecology, in order to increase the scientific and academic level of Romanian clinicians;

- continue the involvement of the Discipline of Anatomy of the "Carol Davila" University of Medicine and Pharmacy, in the organization of postgraduate training courses in order to obtain the qualifications of: Laparoscopy in Obstetrics and Gynecology, Hysteroscopy and Urogynecology;

- continue the involvement of the Anatomy Discipline of the "Carol Davila" University of Medicine and Pharmacy, in performing necropsies on embryos and fetuses with complex congenital malformations in order to certify these anomalies diagnosed ultrasonographically "in utero";

- I will continue to participate in the redaction and translation of Anatomy, Embryology and Histology chapters of modern Obstetrics and Gynecology textbooks that will be used in the training of residents physicians and specialists.

4.1.3.2 With the professional societies of Pathology

I intend to have a close collaboration with the Department of Pathology of the University Emergency Hospital of Bucharest, the Department of Pathology and the Department of Maternal-Fetal Medicine of the National Institute for Mother and Child Health "Alessandrescu-Rusescu" in order to:

- continue the involvement of the Anatomy Discipline of the "Carol Davila" University of Medicine and Pharmacy in performing necropsies on embryos and fetuses with complex congenital malformations in order to certify these anomalies diagnosed ante- and postabortum or ante- and postpartum, as well as the strictly individualized classification in syndromes as appropriate;

- organize courses and workshops on dissection of embryos and fetuses for residents physicians, specialists physicians and even senior pathologists, taking into account the importance of establishing a complete necropsy assessment from both micro- and macroscopic points of view.

4.2 Plans for the improvement of research activity:

In the field of scientific research, I intend the following:

- to conclude the research project that I coordinate entitled "Elaborarea unui protocol de evaluare precoce a riscului de travaliu distocic atât din punct de vedere anatomic cât și funcțional" in which I integrated the results of my doctoral research study, the results of my postdoctoral research study and of the project won by the internal competition "Young Researchers 2013" of the "Carol Davila" University of Medicine and Pharmacy - "Evaluarea riscului de travaliu distocic în funcție de nivelului expresiei relative a genelor ERAP2, LILRA3 și OXTr la nivel miometrial și de nivelul proteinelor serice codificate de acestea". I sincerely expect that this protocol will be analyzed and proposed as a good practice guideline by the experts of the Romanian Society of Obstetrics and Gynecology.

- to continue the good collaboration between the Discipline of Anatomy of the "Carol Davila" University of Medicine and Pharmacy and the Clinics of Obstetrics-Gynecology and the Department of Pathology of the University Emergency Hospital of Bucharest, in order to carry out fundamental research activities that require dissection of embryos, fetuses and microscopic evaluation.

- to continue the close collaboration with the Laboratory of Molecular Biology of the University Emergency Hospital of Bucharest, which started during the project RO 19.10 "Îmbunătățirea serviciilor de sănătate în sarcina cu risc crescut, nașterea prematură și bolile hematologice". The central element in accessing European funds was the belief that the new genetic and molecular diagnostic techniques will lead to an increase in research activity and thus to academic and medical development.

- the successful completion of the research project "Digitalizarea colecției craniologice Francisc I. Rainer", which aims to digitize the "Francisc I. Rainer" craniological collection by inventorying and elaborating the largest database in the world (about 6500 human skulls from the interwar period) in DICOM (Digital Imaging and Communications in Medicine) format. The completion of the database including demographic data, associated pathologies and cause of death will thus allow the elaboration of multiple morphometric and anatomical variability studies of skull structures. At the same time, corroboration of the collected data will allow anthropological studies to be carried out by comparison with data obtained from a cohort of

patients who have benefited from computed tomography scanning. Thus, the digitization of the "Francisc I. Rainer" craniological collection opens up infinitesimal opportunities in time, space and clinical-imaging circumstances for comparative anthropological studies over an indefinite period.

I will continue to participate in national and international scientific events, as active participant, as I have been so far, in which I will present the results of the studies that I coordinate and that I will successfully complete.

I will continue to access European funds in order to obtain equipments and consumables for the realization of research studies within the Anatomy Discipline of the "Carol Davila" University of Medicine and Pharmacy, Bucharest.

After habilitation, I will encourage and contribute to the development of young interdisciplinary research teams to perform large, multicenter studies and to obtain significant results that will increase the prestige and visibility of the "Carol Davila" University of Medicine and Pharmacy, where I was educated as a teacher and physician, and where I currently practice.

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