

biochemist, specialist physician / laboratory medicine

01/2016-present	Emergency University Hospital (SUUB)	Bucharest, Romania
Resident / Neurosurgery		

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| 01/2015-10/2015 | Renamed Laborator | Craiova, Romania |
| Staff physician / Laboratory Medicine | | |

- 01/2012-01/2014 University of Houston Houston, TX
Postdoctoral Fellow / Cell Biology

- 03/2000-08/2005 Fundeni Clinical Institute Bucharest, Romania
Residency / Laboratory Medicine (board certified 2010)

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| 01/1999-02/2000 | Cantacuzino Hospital | Bucharest, Romania |
| Internship / Medical practice for license | | |

- 09/1998-08/1999 Biotechnos S.A. Bucharest, Romania
Pharmaceutical research

- Chief / New Pharmaceutical Bioproducts Lab, Program coordinator /R&D Direction

Education

08/2005-12/2011

University of Houston

Houston, TX

PhD / Cell Biology

- Biology & Biochemistry Dept. / Cell Biology Division
- Research: Behavioral genetics / Learning & memory.
- Dissertation: Investigation of the role of G(o) signaling in short-term memory formation in *Drosophila melanogaster*. Advisor: Gregg Roman, PhD.
- Teaching experience: Human Anatomy & Physiology I & II, and Human Physiology laboratory classes (6 ½ years).

1992-1998

Carol Davila University

Bucharest, Romania

MD / General Medicine

- Faculty of General Medicine / Carol Davila University of Medicine and Pharmacy
- With a thesis about hypothalamo-pituitary-gonadal axis regulation from a cybernetic point of view (Biophysics Dept.). Elective / summer classes: imaging & biophysical techniques (MRI, etc.), and laboratory medicine & pathology.

1997-1998

Bucharest University

Bucharest, Romania

MS / Neurobiology

- Physiology & Biophysics Dept. / Faculty of Biology
- Project for Neural Networks class: an expert system for emergency toxicological diagnostic using artificial neural networks for pattern recognition. Training in electrophysiological techniques and virtual laboratory instrumentation (LabVIEW and Matlab).

1990-1995

Bucharest University

Bucharest, Romania

BS / Biochemistry

- Biochemistry Dept. / Faculty of Biology
- Thesis project: a GC-MS study of steroid metabolites profiles in heavy sports athletes using anabolic androgens (Pharm. Res. & Antidoping Control Lab. of Res. Center for Sports, and Bucharest University)

Publications

- Madalan, A., Yang, X., Ferris, J., Zhang, S., and Roman, G. 2012. G(o) activation is required for both appetitive and aversive memory acquisition in *Drosophila*. *Learn Mem* **19**(1): 26-34.

- Bittner, E.R., Madalan, A., Czader, A., and Roman, G. 2012. Quantum origins of molecular recognition and olfaction in *Drosophila*. *J Chem Phys* **137**(22): 22A551.

In preparation:

- Madalan, A., Zhang, S., Bittner, E.R., Roman, G.W., Olfactory discrimination of isotopomers in *Drosophila*

- Madalan, A., Roman, G.W., Olfactory associative learning in *Aedes*

Abstracts:

- Roman, G. W., Madalan, A., Zhang, S., Phospholipase C beta21 is required for aversive but not appetitive associative learning in *Drosophila*. Society for Neuroscience Meeting, October 13-17, 2012, New Orleans, LA.

- Harmouche J., Harmouch F., Madalan A., Roman, G. The Molecular Vibration of Odorants as a Salient feature in *Drosophila* Olfaction. Regional Undergraduate Symposium, October 20, 2012, Rice University, Houston, TX.

- Roman, G. W., Zhang, S., Madalan, A., Heterotrimeric G(o) activation is required for neural inhibition during negatively-reinforced olfactory learning in *Drosophila*. Society for Neuroscience Meeting, November 12-16, 2011, Washington, DC.

- Roman, G. W., Zhang, S., Madalan, A. The acquisition of associative memories requires the inhibitory action of the heterotrimeric G(o) in the mushroom body neurons of *Drosophila melanogaster*. Biology of Behavior Institute Retreat, 2011 Houston, TX.
- Madalan, A., Yang, X., Ferris, J., Zhang, S., and Roman, G. Examinations of the memory processes requiring G(o) signaling in the mushroom body. 50-th Annual Drosophila Research Conference, March 4–8, 2009, Chicago, IL.

Awards / Distinctions

- Member: Genetics Society of America
- UH Travel Award for Drosophila Research Conference 2009
- National Scholarship (merit-based) granted for 5 academic years
- Research Assistantship – Biotehnos S.A. (Bucharest) and Center for Research in Enzymology and Biotechnology (Bucharest University) – 1 year
- Chemistry Olympiad national finalist and member of National Team

References

- Gregg Roman, Ph.D. (PhD advisor)
Previous: Professor, Director of the Biology of Behavior Institute, Department of Biology and Biochemistry, University of Houston
Current: Professor and Chair, Department of Biology, The University of Mississippi
groman@olemiss.edu, (662) 915-7203
- Brigitte Dauwalder, Ph.D. (member of the dissertation committee)
Associate Professor, Department of Biology and Biochemistry, University of Houston
bdauwalder@uh.edu, (713) 743-2550
- Tejendra Gill, Ph.D. (coordinator laboratory teaching activity)
Professor (Instruction), Director of Laboratory Instruction, Department of Biology and Biochemistry, University of Houston.
tgill@uh.edu, (713) 743-2646