Education:

PhD in Microbiology and Immunology
Temple University School of Medicine, Philadelphia, PA 2002-2008

M.D.
"Gr.T. Popa" School of Medicine, Iasi, Romania 1996-2002

Professional Experience:

Temple University, Philadelphia, PA
Microbiology and Immunology 2002-2008
Ph.D.

Thesis:
Role of p27 in Mediating All Trans Retinoic Acid Sensitivity in Ovarian Carcinoma Cell Lines
Advisor and Committee Chair: Dr. Kenneth J. Soprano, Ph.D.

Independent research studying the importance of post translational modifications of cyclin dependent kinase inhibitor p27 in mediating ovarian carcinoma sensitivity to all trans retinoic acid treatment

Technical Expertise:
Tissue culture and live cell techniques: *Extensive experience in Maintenance of adherent mammalian cell lines; Mammalian cell transfection; Immunocytochemistry; Immunofluorescence microscopy, Cell proliferation assays.*

Molecular Biology and Recombinant DNA techniques: *molecular cloning, mutational analysis, gene sequencing, PCR, real-time quantitative PCR, plasmid isolation, transformation, transfection.*

Protein techniques: *western blot, immunohistochemistry, ELISA, trans activation assays, immunoprecipation, pull-down assays, in vitro transcription translation protein synthesis*

Animal Experience - Mice: H*andling, subcutaneous, intramuscular, intraperitoneal drug administration, isolation of spleens, bone marrow.*

Bioinformatics tools: *DNA and protein sequence analysis; Protein motif analysis, Protein interaction network analysis, Post-translational modification prediction analysis, Pathway analysis*

"Gr.T.Popa" School of Medicine, Iasi, Romania
Volunteer research assistant-Pharmacology laboratory July-October 2001

Study the effect of alcohol and Rifampicyn on mouse immune system
Experience gained: *preparing solutions, blood cell count, performing coagulation assays, analyzing data, researching relevant publications, observing and helping prepare formalin fixed paraffin embedded tissue sections*

Central General Hospital - cardiology unit, Roman, Romania
Rotating Physician July-October 1999, 2000, 2001
Clinical work in internal medicine

Research Interests:

Cancer research:
Intracellular signaling networks that regulate proliferation, cell shape/motility adhesion, metastasis, and how cells become hijacked by disease; Developmental models of cancer, role of oncogene / tumor suppression proteins imbalance; Cell cycle and growth control; Molecular mechanisms of resistance to chemotherapeutic agents; Molecular mechanisms of action of steroid hormones, regulation and signaling through nuclear receptors

Gene expression:
Analysis of transcription factors important for development and/or cancer; Chromatin modification and remodeling in transcriptional control, and DNA methylation in regulating gene expression

Signaling pathways:
The role of signal transduction in control of cellular processes, protein trafficking, protein post-translational modification, protein-protein interaction and protein DNA interaction; Structure and function of transcriptional regulatory complexes; Molecular mechanisms regulating protein kinases; protein kinase signaling

Presentations and Conferences:

Radu M., Soprano D.R., Soprano K.J., *Role of p27 in Mediating All Trans Retinoic Acid Sensitivity in Ovarian Carcinoma Cell Lines.*
Morton Klein Student Conference Day, October 2007, Philadelphia, PA

Radu M., Cianga, C., Cianga, P., Carasevici, E. *The Levels of ERB2 Correlate with Histological Stage of the Tumor in Breast Cancer Patients*
MD Thesis Defense, September 2002, Iasi, Romania

Radu M. Sabadeanu, I., Danaila, O., Lupusor, A. *Rifampicyn Induces Immunosuppression in Mice Chronically Exposed to Alcohol*
6th Congress for Young Researchers, November 2001, Timisoara, Romania

Publications:

Pappas J, Fincke JE, Purev E, **Radu M,** Gaughan J, Helm CW, Hernandez E, Freedman RS, Platsoucas CD, 2005, *Substantial proportions of identical beta-chain T-cell receptor transcripts are present in epithelial ovarian carcinoma tumors*. Cellular Immunology

Radu M, Soprano DR, Soprano KJ., 2008, *S10 phosphorylation of p27 is an essential event in mediating all trans retinoic acid induced growth arrest in ovarian carcinoma cell lines".* Journal of Cellular Physiology

Van de Broeke, C., **Radu, M**. Deruelle, M., Chernoff, J., Nauwynck, H., Hofmann, C., Jaffer, Z., Favoreel, H. 2009, "*Alphaherpesvirus US3-mediated reorganization of the actin cytoskeleton is mediated by p21-activated kinases 1 and 2".* PNAS

Radu, M. and Chernoff, J. 2009 *"The DeMSTification of Mammalian Ste20 Kinases".* Current Biology (in press)

Academic and Professional Honors:

Florence Gloria Freedman Award for achievements in cancer research 2008
Temple University

Research Assistant Scholarship 2002-2003,
Temple University 2005-2008

Fellowship awarded for exceptional academic achievements
2003-2005
Temple University

2nd prize at the 6th Congress for Young Researchers 2001
Timisoara, Romania

Scholarship for outstanding activity 1996-2000
"Gr.T Popa" School of Medicine and Pharmacy, Iasi, Romania