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6052 Quebec Avenue
Ann Arbor, MI 48103

Education:

- 1990-1996 Ph.D. Harvard University, Cambridge MA.
(Cell and Developmental Biology; advisor: Prof. Joel A. Swanson)
- 1986-1989 B.S. Biological Sciences, Stanford University, Stanford CA.
- 1986 High School and Bachillerato diplomas, Colegio Karl C. Parrish, Barranquilla, Colombia
- 1985 Cornell University Summer Program for High School Students, Ithaca, NY
- 1984 Mathematical Modeling Training Program, Georgetown University, Washington D.C.

Professional Positions

- 2015- Professor, Dept of Pharmaceutical Sciences, Univ of Michigan, Ann Arbor, MI.
- 2008-2015 Associate Professor, Dept of Pharmaceutical Sciences, Univ of Michigan, Ann Arbor, MI
- 2003- Member, University of Michigan Comprehensive Cancer Center
- 2001-2008 Assistant Professor, Dept. of Pharmaceutical Sciences, Univ of Michigan, Ann Arbor, MI
- 1999-2001 Scientist, Cellomics, Inc., Pittsburgh, PA.
- 1997-1999 Research Associate, Howard Hughes Medical Institute,
(Dept of Chemistry, University of California, Berkeley, CA; advisor: Dr. Peter G. Schultz)
- 1990-1996 Research Assistant, Harvard University, Cambridge, MA
- 1996 Teaching Fellow, Harvard University, Cambridge, MA
- 1995 Teaching Fellow, Harvard University, Cambridge, MA
- 1993 Teaching Fellow, Harvard University, Cambridge, MA
- 1989 Laboratory technician, New York Medical College, Valhalla, NY
- 1989 Teaching Assistant, Hopkins Marine Station, Pacific Grove, CA

Significant Professional Activities

- 2017 NIH 2017/10 BCHI study section (ad hoc)
- 2017 Oakbridge University grant review panel
- 2017 NIH special study section ZRG1 IMM-N 50 R,
- 2016 NIH special study section ZRG1 BCMB-T (02)
- 2013 Editorial Advisory Board "British Journal of Pharmaceutical Sciences"
- 2013 Editorial Advisory Board "Journal of Pharmaceutics and Pharmacology"
- 2013 NIH BNVT study section (ad hoc)
- 2013 NIH special study section ZGM2 BBCB-9 (SB)
- 2013 MICHR Pilot Grant Program review panel
- 2013 Oakbridge University grant review panel
- 2013 Nazarbayev University grant review panel
- 2011 NIH special study section ZCA1 -SRLB -3
- 2011 NIH special study section ZRG1 -BST -M -(02)
- 2011 NIH special study section ZCA1 -SRLB -3 -(O1)
- 2009-2011 Executive Committee- Drug Transport Focus Group, AAPS

- 2009 NIH special study section ZGM1-GDB-7-CR
- 2009 NIH special study section ZRG1 BST-M (58)
- 2009 Editorial Advisory Board, "Pharmaceutics".
- 2008 NIH special study section ZGM1 MBRS-2
- 2004- Editorial Advisory Board "Molecular Pharmaceutics"
- 2003 Guest editor: Current Topics in Medicinal Chemistry

Honors and Awards

- 2018 Fellow, American Association of Pharmaceutical Scientists
- 2007 United States Presidential Early Career Award for Scientists and Engineers (PECASE)
- 2004 Premio Colombia Exterior (Outstanding Colombians in the USA).
- 2003 Upjohn-Vahlteich Research Award

Additional professional activities

- 2004- Ad hoc reviewer for the following funding agencies: National Science Foundation (USA), Burroughs Wellcome Fund (UK), National Institutes of Health (USA), A*Star (Singapore), CRSNG (Canada); MICHR; Nazarbayev University; Oakbridge University).

- 2004- Program committee member of the CYTO Meeting of the International Society for the Advancement of Cytometry, Great Lakes Bioinformatics conference, Gordon Conference and the Annual Meeting of the American Association of Pharmaceutical Scientists

- 2001- Ad hoc reviewer for the following journals: Journal of the American Chemical Society, Proceedings of the National Academy of Sciences, Chemical Reviews, Biophysical Journal, Pharmaceutical Research, Chemistry and Biology, Journal of Cell Biology, Cell Stem Cell, Journal of Pharmaceutical Sciences, Journal of Pharmacology and Experimental Therapeutics, Journal of Medicinal Chemistry, ACS Chemical Biology, Journal of Combinatorial Chemistry, Combinatorial Chemistry and High Throughput Screening, ChemBioChem, Molecular Pharmaceutics, Molecular Pharmacology, Nature Biotechnology, Pharmaceutics, Canadian Journal of Anesthesia, Canadian Journal of Physiology and Pharmacology, Drug Metabolism and Disposition, Expert Opinion in Drug Discovery, Expert Opinion in Drug Metabolism and Toxicology, Organic and Medicinal Chemistry Letters, Medicinal Chemistry Communications, Targets, Cell Biology and Toxicology, Journal of Chemical Information and Modeling, Biochemica et Biophysica Acta, Bioanalysis, Recent Patents on Anticancer Drug Discovery, European Journal of Medicinal Chemistry, British Journal of Pharmacology, FASEB Journal, Life sciences, International Journal of Pharmaceutics, Australian Journal of Chemistry, Journal of Investigative Dermatology, Macedonian Journal of Medical Sciences, Biomaterials, Journal of Controlled Release, American Journal of Physiology, Analyst, Cancer Research, Biochemistry, Immunology Letters, PloS ONE, Molecular BioSystems, Toxicology and Applied Pharmacology, International Journal of Nanomedicine, Journal of Cellular Biochemistry, Molecular Cancer Therapeutics, PloS Computational Biology.

Classroom Teaching

- 2019- PharmSci420- Medicinal Cannabis (2 Credits, B.S.; PharmD)
- 2019- PharmSci710- Micropharmacokinetics : Cellular Drug Transport (2 credits, PhD)
- 2017- PharmSci300- Biopharmaceutics (3 credits, B.S.)

- 2016-2018 PharmSci718- Biopharmaceutics and Pharmacogenomics (2 credits, PharmD)
- 2013-2015 PharmSci563 –Biopharmaceutics and Pharmacogenomics (2 Credits; PharmD)
- 2011- PharmSci702 –Pharmaceutical Design, Delivery and Targeting (2 credits, PhD)
- 2010-2014 Medchem532- Intro to Drug Design, Targeting and Delivery (2 credits, PhD).
- 2003-11 PharmSci 465 –Biopharmaceutics and Pharmacogenomics (2 credits; BS and Pharm D)
- 2003-11 PharmSci 734 -Pharmacogenomics and Drug Discovery (2 credits;PhD)
- 2003-2015 PharmSci 659- Pharmaceutical Sciences Journal Club (1 credit; PhD)

Committees and Service

- 2018- Faculty Development committee (member)
- 2018- Diversity, Equity and Inclusion committee (member)
- 2015-2018 College of Pharmacy Executive Committee (member)
- 2015- Pharmaceutical Sciences Department Social Committee (member)
- 2013- Pharmaceutical Sciences Strategic Planning Committee (member)
- 2013- Pharmaceutical Sciences Web Site Development Committee (member)
- 2013 College of Pharmacy International Committee (member)
- 2012 Pharmaceutical Sciences Assistant Professor Faculty Search Committee (Chair)
- 2011- Pharmaceutical Sciences Department Strategic Planning Committee (member)
- 2011-2013 Pharmaceutical Sciences Graduate Student Admissions Committee (member)
- 2010- Pharmaceutical Sciences Graduate Student Recruitment Committee (Chair)
- 2010- College of Pharmacy Pharm D Curriculum committee (member)
- 2010-2012 Pharmaceutical Sciences BS Curriculum committee (member)
- 2010- College of Pharmacy Faculty Development Committee (member)
- 2010 Ara J. Paul Professor Faculty Search Committee (member)
- 2010 Univ. of Michigan Rackham Pre-doctoral Fellowship Award Committee (member)
- 2008 Pharmaceutical Sciences Assistant Professor Faculty Search Committee (member)
- 2007 Pharmaceutical Sciences Graduate Student Recruitment Committee (member)
- 2003-10 Pharmaceutical Sciences Department Seminar Coordinator

Current Professional Associations

- Member- International Society for the Advancement of Cytometry
- Member- American Association for the Advancement of Science
- Member- American Association of Pharmaceutical Scientists
- Member- American Chemical Society.

Student Advising and Mentoring Activities:

PhD students:

- Jen Diaz-Espinosa (current G3, Pharmaceutical Sciences)
- Mery Vet George De La Rosa (current G2, Pharmaceutical Sciences)
- Andrew Willmer (current PharmD/PhD student)
- Misha Murashov, 2019 PhD (Scientist at Merck).
- Vernon Lalone, 2019 PhD (Chemistry Post-doc at Imperial College, London)
- Phil Rzczycki, 2017 PhD (Anesthesiology post-doc at Univ of Michigan)
- Tehetina Woldemichael, 2017 PhD (currently attending Law school)
- Kyoung Ah Min, 2013 PhD (assistant professor in Korea)
- Jason Baik, 2012 PhD (Scientist Optivia, Inc))
- Nan Zheng, 2012 PhD (Reviewer at Food and Drug Administration)

Jerry Yu, 2011 PhD (Pharmacometrician at Food and Drug Administration).
Xinyuan Zhang, 2010 PhD (Reviewer at Food and Drug Administration)
Vivien Y. Chen, 2008 PhD; 2011 JD (Astellas Pharma)

PharmD Research Students

Joo Yoon, B.S. (PharmD, 2019)
Harsha Sayala, B.S. (PharmD, 2019)
Duha Bakleh, B.S. (PharmD, 2019)
Ifham Ahmed, B.S. (PharmD, 2019)
Mike Kwiatkowski, PharmD 2017
Nathan Jacobs, PharmD 2017
Tony Koehn, PharmD 2016
Julie Trexel, B.S.
Mandee Nguyen, PharmD 2009
Lilly Zhao, PharmD 2008
Roanne Alhambra, PharmD 2006
Victor Ortiz, PharmD 2006
Jeff Wagner, PharmD 2004
Julie (Brumer) Dumond 2004, PharmD

Post-doctoral fellows/Visiting Scientists

Rahul Keswani, PhD
Gi Sang Yoon, PhD
Maria M. Posada, PhD (2007)
Tong Zhao, PhD 2006
Xue Tao Xie, MD, PhD 2005
Parthapratim Chandaroy, PhD 2004

PhD thesis committee membership

Marc McCann, current PhD student
Kari Nieto, PhD 2017
Allison Matyas, PhD 2016
Maya Lipert PhD 2015
Hanna Song PhD 2015
Hao Xu, PhD 2015
Conner Sandefur, PhD 2012 Bioinformatics (currently Research Associate at UNC Chapel Hill)
Fangy Li, PhD 2012 Statistics
Juhee Lee, PhD 2012 Pharm Sci
Chasity Andrews, PhD 2011 Pharm Sci (currently Research Associate at ColumbiaU)
Tien Yi Lee, PhD 2011 Pharmaceutical Sciences
Na Hyung Kim, PhD 2011 Pharm Sci
Yanke Yu, PhD 2011 Pharm Sci (currently Scientist at Eisai, Inc)
Adam Cole, PhD 2011 Pharm Sci (currently Research Associate at Stanford U)
Huy Voung, PhD 2010 Bioinformatics
Katherine Ma, PhD 2010 Pharm Sci
Hairat Sabit, PhD 2010 Pharm Sci (currently at Food and Drug Administration)
Adam Lee, PhD 2009 Medicinal Chemistry (Currently at Molecular Simulations, Inc)
Jonathan Miller, PhD 2009 Pharm Sci (currently at Abbvie Inc)
Jihao Zhou, PhD 2009 Biostatistics (currently Director at Allergan, Inc)
Xingyi Gu, PhD 2008 Pharm Sci (currently at Wells Fargo Securities)
Greg Dyson, PhD 2008 Statistics

Cheol Moon, PhD 2007 Pharm Sci
Patty Yang, PhD 2007 Pharm Sci
Scott Ocheltree, PhD 2006 Pharm Sci (currently at Eli Lilly, Inc)
Theresa Nguyen, PhD 2006 Pharm Sci (currently at Merck & Co)
Yasuhiro Tsume, PhD 2006 Pharm Sci (currently Research Scientist at Uof M)
Longsheng Lai, PhD, 2006 Pharm Sci (currently a Research Associate at Yale U)
Sachin Mittal, PhD 2006 Pharm Sci (currently at Merck & Co)
Phil Lorenzi, PhD 2005 Pharm Sci (currently at MD Anderson)
Ethan Stier, PhD 2004 Pharm Sci (currently at Food and Drug Administration)

Undergraduate students

Jomar Morales Mercado, B.S.
Raluca Laza, B.S.
Hannah Stutzman, B.S.
Montana Mason, B.S.
Tommy Vu, B.S.
Ben Frey, B.S.
Michael Arocho, B.S.
Mason Chiang, B.S.
Sashary Ramos, B.S.
Mahwish Hafeezma, B.S., MD
Jungkap Park, B.S. PhD
Christof Smith B.S., MD, PhD
Esteban Montemayor, B.S.
Newaj Abdullah, B.S. MD
Alex Turin, B.S. MD
Hobart Ng Tsai, B.S.PharmD
Andy Lim, B.S. PhD
Dante Pertusi, B.S., PhD
Andrew Parth, B.S.
Leonard Chu, B.S., PhD
Alex Thibonnier, B.S.MS
Christ Gorges, B.S.MS

Peer-Reviewed Publications

Tan JWY, Murashov MD, **Rosania GR**, Wang X. (2019) Photoacoustic imaging of clofazimine hydrochloride nanoparticle accumulation in cancerous vs normal prostates. *PLoS One*. 2019;14(7):e0219655. doi: 10.1371/journal.pone.0219655. eCollection 2019. PubMed PMID: 31306463; PubMed Central PMCID: PMC6629155.

Hong X, Rzeczycki PM, Keswani RK, Murashov MD, Fan Z, Deng CX, **Rosania GR**. (2019) Acoustic tweezing cytometry for mechanical phenotyping of macrophages and mechanopharmaceutical cytotoxicity. *Sci Rep*. 2019 Apr 5;9(1):5702. doi: 10.1038/s41598-019-42180-3. PubMed PMID: 30952950; PubMed Central PMCID: PMC6450871.

- Murashov MD, Diaz- Espinosa J, LaLone V, Tan JWY, Laza R, Wang X, Stringer KA, **Rosania GR. (2018)** Synthesis and Characterization of a Biomimetic Formulation of Clofazimine Hydrochloride Microcrystals for Parenteral Administration. *Pharmaceutics*. 10(4)
- Rzeczycki P, Woldemichael T, Willmer A, Murashov MD, Baik J, Keswani R, Yoon GS, Stringer KA, Rodriguez-Hornedo N, **Rosania GR. (2018)** An Expandable Mechanopharmaceutical Device (1): Measuring the Cargo Capacity of Macrophages in a Living Organism. *Pharmaceutical Research*. 2018; 36(1):12
- Rzeczycki P, Yoon GS, Keswani RK, Sud S, Baik J, Murashov MD, Bergin IL, Stringer KA, **Rosania GR. (2018)** An Expandable Mechanopharmaceutical Device (2): Drug Induced Granulomas Maximize the Cargo Sequestering Capacity of Macrophages in the Liver. *Pharmaceutical Research*. 2018; 36(1):3.
- LaLone V, Mourão MA, Standiford TJ, Raghavendran K, Shedden K, Stringer KA, **Rosania GR. (2018)** An Expandable Mechanopharmaceutical Device (3): a Versatile Raman Spectral Cytometry Approach to Study the Drug Cargo Capacity of Individual Macrophages. *Pharmaceutical research* 36(1):2.
- Woldemichael T, Keswani RK, Rzeczycki PM, Murashov MD, LaLone V, Gregorka B, Swanson JA, Stringer KA, **Rosania GR. (2018)** Reverse Engineering the Intracellular Self-Assembly of a Functional Mechanopharmaceutical Device. *Sci Rep*. Feb 13;8(1):2934. doi: 10.1038/s41598-018-21271-7.
- Murashov MD, LaLone V, Rzeczycki PM, Keswani RK, Yoon GS, Sud S, Rajeswaran W, Larsen S, Stringer KA, **Rosania GR. (2018)** The Physicochemical Basis of Clofazimine-Induced Skin Pigmentation. *J Invest Dermatol*. Mar;138(3):697-703. doi: 10.1016/j.jid.2017.09.031. Epub 2017 Oct 16.
- Woldemichael T, **Rosania GR (2017)**. The physiological determinants of drug-induced lysosomal stress resistance. (2017) *PLoS One*. Nov 8;12(11):e0187627. doi: 10.1371/journal.pone.0187627.
- Rzeczycki P, Yoon GS, Keswani RK, Sud S, Stringer KA, **Rosania GR.(2017)** Detecting ordered small molecule drug aggregates in live macrophages: a multi-parameter microscope image data acquisition and analysis strategy. *Biomed Opt Express*. Jan 13;8(2):860-872. doi: 10.1364/BOE.8.000860. eCollection 2017 Feb 1.
- Horstman EM, Keswani RK, Frey BA, Rzeczycki PM, LaLone V, Bertke JA, Kenis PJ, **Rosania GR. (2017)** Elasticity in Macrophage-Synthesized Biocrystals.(2017) *Angew Chem Int Ed Engl*. Feb 6;56(7):1815-1819. doi: 10.1002/anie.201611195. Epub 2017 Jan 12.
- Trexel J, Yoon GS, Keswani RK, McHugh C, Yeomans L, Vitvitsky V, Banerjee R, Sud S, Sun Y, **Rosania GR, Stringer KA. (2016)** Macrophage-Mediated Clofazimine Sequestration Is Accompanied by a Shift in Host Energy Metabolism. *J Pharm Sci*. Apr;106(4):1162-1174. doi: 10.1016/j.xphs.2016.12.009. Epub 2016 Dec 20.

- Yoon GS, Keswani RK, Sud S, Rzeczycki PM, Murashov MD, Koehn TA, Standiford TJ, Stringer KA, **Rosania GR. (2016)** Clofazimine Biocrystal Accumulation in Macrophages Upregulates Interleukin 1 Receptor Antagonist Production To Induce a Systemic Anti-Inflammatory State. *Antimicrob Agents Chemother.* May 23;60(6):3470-9. doi: 10.1128/AAC.00265-16. Print 2016 Jun.
- Keswani RK, Tian C, Peryea T, Girish G, Wang X, **Rosania GR.(2016)** Repositioning Clofazimine as a Macrophage-Targeting Photoacoustic Contrast Agent. *Sci Rep.* Mar 22;6:23528. doi: 10.1038/srep23528.
- Min KA, **Rosania GR**, Shin MC. **(2016)** Human Airway Primary Epithelial Cells Show Distinct Architectures on Membrane Supports Under Different Culture Conditions. *Cell Biochem Biophys.* Jun;74(2):191-203. doi: 10.1007/s12013-016-0719-8. Epub 2016 Jan 27.
- Min KA, **Rosania GR**, Kim CK, Shin MC. **(2016)** Functional and cytometric examination of different human lung epithelial cell types as drug transport barriers. *Arch Pharm Res.* Mar;39(3):359-69. doi: 10.1007/s12272-015-0704-6. Epub 2016 Jan 8.
- Min KA, Rajeswaran WG, Oldenbourg R, Harris G, Keswani RK, Chiang M, Rzeczycki P, Talattof A, Hafeez M, Horobin RW, Larsen SD, Stringer KA, **Rosania GR (2015)** .Massive Bioaccumulation and Self-Assembly of Phenazine Compounds in Live Cells. *Adv Sci (Weinh).* Aug;2(8). pii: 1500025.
- Lin S, Racz J, Tai MF, Brooks KM, Rzeczycki P, Heath LJ, Newstead MW, Standiford TJ, **Rosania GR**, Stringer KA. **(2015)** A Role for Low Density Lipoprotein Receptor-Related Protein 1 in the Cellular Uptake of Tissue Plasminogen Activator in the Lungs. *Pharm Res.* Jan;33(1):72-82. doi: 10.1007/s11095-015-1763-6. Epub 2015 Aug 1.
- Keswani RK, Yoon GS, Sud S, Stringer KA, **Rosania GR (2015)**. A far-red fluorescent probe for flow cytometry and image-based functional studies of xenobiotic sequestering macrophages. *Cytometry A.* Sep;87(9):855-67. doi: 10.1002/cyto.a.22706. Epub 2015 Jun 24.
- Keswani RK, Baik J, Yeomans L, Hitzman C, Johnson AM, Pawate AS, Kenis PJ, Rodriguez-Hornedo N, Stringer KA, **Rosania GR. (2015)** Chemical Analysis of Drug Biocrystals: A Role for Counterion Transport Pathways in Intracellular Drug Disposition. *Mol Pharm.* Jul 6;12(7):2528-36. doi: 10.1021/acs.molpharmaceut.5b00032. Epub 2015 Jun 5.
- Yoon GS, Sud S, Keswani RK, Baik J, Standiford TJ, Stringer KA, **Rosania GR. (2015)** Phagocytosed Clofazimine Biocrystals Can Modulate Innate Immune Signaling by Inhibiting TNF α and Boosting IL-1RA Secretion. *Mol Pharm.* Jul 6;12(7):2517-27. doi: 10.1021/acs.molpharmaceut.5b00035. Epub 2015 Jun 5.
- Min KA, Zhang X, Yu JY, **Rosania GR. (2014)** Computational approaches to analyze and predict small molecule transport and distribution at cellular and subcellular levels. *Biopharm Drug Dispos.* Jan;35(1):15-32. doi: 10.1002/bdd.1879. Epub 2013 Dec 10.

- Baik J, **Rosania GR (2013)** Modeling and simulation of intracellular drug transport and disposition pathways using Virtual Cell. *J Pharm Pharmacol* (Los Angel). 2013 Sep 13;1(1).
- Rosania GR**, Shedden K, Zheng N, Zhang X. (2013) Visualizing chemical structure-subcellular localization relationships using fluorescent small molecules as probes of cellular transport. *J Cheminform.* 2013 Oct 5;5(1):44.
- Min KA, Talattof A, Tsume Y, Stringer KA, Yu JY, Lim DH, **Rosania GR (2013)** The Extracellular Microenvironment Explains Variations in Passive Drug Transport Across Different Airway Epithelial Cell Types. *Pharm Res.* DOI 10.1007/s11095-013-1069-5
- Min KA, Shin MC, Yu F, Yang M, David AE, Yang VC, **Rosania GR. (2013)** Pulsed magnetic field improves the transport of iron oxide nanoparticles through cell barriers. *ACS Nano.* Mar 26;7(3):2161-71. doi: 10.1021/nn3057565.
- Chu X, Korzekwa K, Elsby R, Fenner K, Galetin A, Lai Y, Matsson P, Moss A, Nagar S, **Rosania GR**, Bai JP, Polli JW, Sugiyama Y, Brouwer KL.(2013) Intracellular Drug Concentrations and Transporters: Measurement, Modeling and Implications in the Liver. *Clin Pharmacol Ther.* Apr 10. doi: 10.1038/clpt.2013.78.
- Baik J, Mane G, Stringer K and **Rosania G. (2013)** Immune-system mediated xenobiotic sequestration following long-term exposure to a bioaccumulating compound. *Antimicrobial Agents and Chemotherapy.* Mar;57(3):1218-30. doi: 10.1128/AAC.01731-12.
- Baik, J and **Rosania GR (2012)** Macrophages sequester clofazimine in an intracellular liquid crystal-like supramolecular organization. *PlosONE.* Doi. 10.1371/journal.pone.0047494
- Yu J-Y, Zheng N, Mane G, Min KA, Hinestroza JP, Zhu H, Stringer KA, and **Rosania, GR (2012)** A cell-based computational modeling approach for developing site-directed molecular probes. *PloS Computational Biology.* 8(2): e1002378. doi:10.1371/journal.pcbi.1002378. PMC number in progress.
- Madathilparambil VS, Wagner MC, **Rosania GR**, Stringer KA, Min KA, Risler L, Shen DD, Georges GE, Reddy AT, Parkkinen J, and Reddy RC (2012) Pulmonary Administration of Water-soluble Curcumin Complex Reduces ALI Severity. *American Journal of Respiratory Cell and Molecular Biology.* doi:10.1165/rcmb.2011-0175OC PMC number in progress.
- Baik J; **Rosania GR (2011)** Molecular imaging of intracellular drug-membrane aggregate formation. *Mol Pharmaceutics* Oct 3;8(5):1742-9.PMCID: PMC3185106
- Zheng N, Tsai HN, Zhang X, Shedden K and **Rosania GR (2011)** The subcellular distribution of small molecules: a meta-analysis. *Mol Pharmaceutics* Oct 3;8(5):1611-8. PMCID: PMC3185174
- Zheng N, Zhang X, **Rosania GR.(2011)** Effect of phospholipidosis on the cellular pharmacokinetics of chloroquine. *J Pharmacol Exp Ther.* Mar;336(3):661-71. PMCID PMC3061524

- Zheng N, Tsai HN, Zhang X and Rosania GR (2011) The subcellular distribution of small molecules: from pharmacokinetics to synthetic biology. *Mol Pharmaceutics* Oct 3; 8(5):1619-28. PMID: PMC3185113
- Min KA, Yu F, Yang VC, Zhang, X and Rosania GR. (2010) Transcellular Transport of Heparin-coated Magnetic Iron Oxide Nanoparticles (Hep-MION) Under the Influence of an Applied Magnetic Field. *Pharmaceutics* Apr 26;2(2):119-135. PubMed PMID: 21152371; PubMed Central PMCID: PMC2997712
- Yu, JY and Rosania GR. (2010) Cell-based multiscale computational modeling of small molecule absorption and retention in the lungs. *Pharmaceutical Research*. 27(3):457-67 PubMed PMID:20099073; PubMed Central PMCID: PMC2907074.
- Shedden K and Rosania G (2010) Chemical address tags of fluorescent bioimaging probes. *Cytometry A* 77(5):429-38 PubMed PMID:20104576; PubMed Central PMCID: PMC2907078.
- Zhang, X, Zheng, N, Zou P, Zhu H, Hiestroza, JP and Rosania G (2010) Cells on pores: A simulation-driven analysis of transcellular small molecule transport. *Molecular Pharmaceutics* 7(2):456-67 PubMed PMID:20025248; PubMed Central PMCID: PMC2920490.
- Shedden, K, Yang Y, and Rosania G (2009) Gene expression associations with the growth inhibitory effects of small molecules on live cells: Specificity of effects and uniformity of mechanisms. *Statistical Analysis and Data Mining*. 2: 175-185. PubMed PMID: 20657799
- Park J, Rosania GR, Saitou K. (2009) Tunable machine vision based strategy for automated annotation of chemical databases. *J Chem Inf Model*. 49(8):1993-2001. PubMed PMID 19621901' PubMed Central PMC2907084
- Shedden K, Li Q, Liu F, Chang YT and Rosania GR (2009) Machine vision assisted analysis of structure-localization relationships in a combinatorial library of prospective bioimaging probes. *Cytometry A* 75(6) 482-493. PubMed PMID:19243023; PubMed Central PMCID: PMC2692593.
- Park J, Rosania GR, Shedden KA, Nguyen M, Lyu N, Saitou K. (2009) Automated extraction of chemical structure information from digital raster images. *Chem Cent J*. Feb 5;3:4.
- Abdullah N, Rosania GR, and Shedden K (2009) Selective Targeting of Tumorigenic Cancer Cell Lines by Microtubule Inhibitors. *PlosONE*;4(2):e4470. Epub 2009 Feb 13. PubMed PMID:19214225; PubMed Central PMCID: PMC2636860.
- Lee AC, Shedden K, Rosania GR, Crippen GM. (2008) Data Mining the NCI60 to Predict Generalized Cytotoxicity. *J Chem Inf Model*. 48(7):1379-88. PubMed PMID:18588283; PubMed Central PMCID: PMC2561991.

- Trapp, S; **Rosania GR**, Horobin R. and Kornhuber J. (2008) Quantitative modeling of selective lysosomal. targeting by passive diffusion of xenobiotic compounds: model development and simulations for single cells. *European Biophysical Journal* 37(8):1317-28. PubMed PMID:18504571; PubMed Central PMCID: PMC2711917.
- Chang Y-T and **Rosania, GR: US 7338428** Combinatorial fluorescent library based on the styryl scaffold. New York University. Mar, 4 2008.
- Zhang X., Zheng N and **Rosania GR** (2008) Simulation-based cheminformatic analysis of organelle-targeted molecules: lysosomotropic monobasic amines. *Journal of Computer Aided Molecular Design* Sep;22(9):629-45. PubMed PMID:18338229; PubMed Central PMCID: PMC2516532.
- Posada MM, Shedden K, Chang YT, Li Q and **Rosania GR** (2007). Prospecting for Live Cell Bioimaging Probes with Cheminformatic Assisted Image Arrays. *ISBI 2007 4th IEEE International Symposium on Biomedical Imaging: From Nano to Macro* April 2007 Page(s):1108 – 1111
- Rosania, GR**; Crippen, G; Woolf, P., States,D. and Shedden, K. (2007). A cheminformatic toolkit for mining biomedical knowledge. *Pharm Res.* Oct;24(10):1791-802.
- Chen, VY, Posada, MM, Zhao, L, and **Rosania GR** (2007). Rapid doxorubicin efflux from the nucleus of drug resistant cancer cells following extracellular drug clearance. *Pharm. Research* Nov;24(11):2156-67.
- Zhang X, Shedden K, **Gus Rosania.** (2006). A cell-based molecular transport simulator for pharmacokinetic prediction and cheminformatic exploration. *Molecular Pharmaceutics*; 3(6) pp 704 - 716.
- Chen V.Y and **Rosania G.R.** (2006) The Great Multidrug Resistance Paradox *ACS Chem Biol.* 1(5):271-273.
- Zhang X. and **Rosania GR.** (2006) A virtual cell-based simulator for pharmaceutical project management, risk assessment and decision making. *Proceedings of the 4th International Conference on Computer Science and its Applications*, pp. 58-65. US Education Service, San Diego, CA.
- Chen VY, Posada MM, Blazer LL, =Zhao T, and **Rosania GR** (2006) The role of the Vps4a-exosome pathway in the intrinsic egress route of DNA-binding anticancer drug. *Pharm Res.* 23(8): 1687-1695.
- Li Q, Kim Y, Namm J, Kulkarni A, **Rosania GR**, Ahn YH, Chang YT (2006) RNA-selective, Live Cell Imaging Probes for Studying Nuclear Structure and Function. *Chemistry and Biology* Jun;13(6):615-23.
- Rosania, G.R.** (2005) Mitochondria give cells a tan *Chem Biol.* 12(4):412-3

- Chen, V.Y., Khersonsky, S.M., Shedden, K., Chang, Y.T., and **Rosania, G.R.** (2004) System Dynamics of Subcellular Transport. *Molecular Pharmaceutics*. 1(6): 414-425.
- Shedden K, **Rosania GR.** (2004) Exploratory chemoinformatic analysis of cell type selective anticancer drug targeting. *Molecular Pharmaceutics*. 1(4): 267-280.
- Kim S, **Rosania G**, and Chang YT. (2004) Dedifferentiation? What's next? *Mol Interv.* Apr;4(2):83-5.
- Shedden K, Xie XT, Chandaroy P, Chang YT, **Rosania GR.** (2003) Expulsion of small molecules in vesicles shed by cancer cells: association with gene expression and chemosensitivity profiles. *Cancer Res.* 2003 Aug 1;63(15):4331-7
- Shedden K, Brumer J, Chang YT and **Rosania GR** (2003) Chemoinformatic analysis of a supertargeted library of styryl molecules. *J. Chem. Info and Comp. Sci.* 43(6):2068-80.
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Chang, Y.T., **Rosania, G.R.**, and Chung, S.K. (2001) Inositol phospholipid pathway inhibitors and regulators. *Expert Opin. Therap. Patents*. **11**(1):45-58.

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Rosania, G.R., Merlie, J., Chang, Y.-T., Gray, N., Heald, R., and Schultz P.G. (1999) A cyclin-dependent kinase inhibitor inducing cancer cell differentiation: biochemical identification using *Xenopus* egg extracts. **Proc. Nat. Acad. Sci. USA.** 96: 4797-4802.

Chang, Y.-T., Grey, N., **Rosania, G.R.** Sutherlin, D., Sarohia, R. Kim, S.J., Meijer, L. and Schultz, P.G. (1999) Synthesis and application of functionally diverse 2,6,9-trisubstituted purine libraries as CDK inhibitors. **Chem Biol.** 6:361-7.

Rosania, G.R., and Swanson, J.A. (1996) Microtubules can modulate pseudopod activity from a distance inside macrophages. **Cell Motility and Cytoskel.** 34: 230-245.

Rosania, G. R. (1996) Spatial Control of Protrusive Activity and Cell Shape by Microtubules. Ph.D. Thesis, Harvard University, Cambridge, MA.

Rosania, G.R., and Swanson, J.A. (1995) Effects of macromolecular crowding on nuclear size. **Exp. Cell Res.** 218: 114-122.

Patents

Chang YT, **Rosania GR** **US 11/680,731** RNA-Selective probes for live cell imaging of nuclear structure and function **01 March 2007**

Shedden, K and Rosania G **WO 2005/022362** CHEMICAL ADDRESS TAGS **02 September 2004**

Chang YT, Rosania GR **US 2005/0054006** Combinatorial fluorescent library based on the styryl scaffold. **10 March 2005.**

Rosania G; Sammak P; Rubin R. **WO02/077903** Methods for determining the organization of a cellular component of interest **25 March 2002**

Sammak P, **Rosania G**, Rubin R, Nederlof M, Lapets OP, Shopoff R, Kannan M:**WO 02/061423** Automated assay for identification of individual cells during kinetic assays. **21 December 2001**

Sammak P, **Rosania G**, Zana LJ, Ippolito K, Bush J, Friedman A, Burroughs Tencza S, Kapur R: **US 20020098588** Microbead-based test plates and test methods for fluorescence imaging systems **30 November 2001**.

Invited Oral Presentations and Seminars

July 29, 2019. Introducing Cannabis into the Curriculum **Capital Area Marijuana Summit**, Ingham County Substance Awareness and Prevention Coalition. Lansing MI.

July 29, 2019. Obstacles to Medicinal Cannabis Research as Fuel for Illegal Use and Abuse. **Capital Area Marijuana Summit**, Ingham County Substance Awareness and Prevention Coalition. Lansing, MI.

April 20, 2019 The Science of Medicinal Cannabis **420CannaExpo**, Eagle Crest Conference Center, Mt Pleasant, MI

April 14, 2019 Synthetic vs. Natural Cannabinoids. **Michigan Cannabis Leaders Summit**, University of Michigan, Ann Arbor, MI

April 7, 2019. Synthetic vs. Natural Cannabinoids, **Hash Bash Medical Panel**, University of Michigan School of Law, Ann Arbor, MI.

November 1, 2018 Cellular PBPK Modeling of Drug Phase Transitions. **Clinical Pharmacology Seminar Series**. University of California-San Diego.

October 9, 2018. Clearing the Haze- A Pharmaceutical Scientist's Perspective. **Delta College**, Delta, MI.

October 6, 2018. Cannabis Pharmacology. **Northern Michigan Cannabis Conference**. Northern Michigan University . Marquette, MI.

September 29, 2018. Efficacy and Safety of Epidiolex and Other Cannabidiol (CBD) Containing Botanical Products. **Green Wolverine Science Symposium**. University of Michigan Ross School of Business. Ann Arbor, MI.

Septemeber 21, 2018. Molecular Engineering an Expandable Mechanopharmaceutical Device to Probe the Cargo Capacity of Macrophages in a Living Organism. **Skaggs School of Pharmaceutical Sciences Seminar Series** University of California San Diego,

June 6, 2018 The fine balancing act of drug formulation R&D in academia. **International Conference & B2B on Pharma Research and Development**. Philadelphia, PA.

June 29, 2017. Macrophage-Stabilized Drug Crystals. **Global Conference on Pharmaceutics and Drug Delivery Systems**, Valencia, Spain.

June 15, 2017. Imagining the Future of Pharmaceutical Sciences (Then Making It Real). **Pharmaceutical Graduate Students Research Meeting**, Ann Arbor, MI.

March 21, 2017. Drug Biocrystals, Mechanopharmaceutics and Beyond! Department of Pharmaceutical Science, **University of Tennessee Health Sciences Center**, Memphis, TN.

October 22, 2016. Curing Leprosy: Discovering the Science Behind a Miracle. Latino Research Experiences: Talento Local y de Exportación”. **Purdue University**, West Lafayette, IN

July 25, 2016. Pharmacometabolomics: Emerging Experimental Approaches and Computational Tools, **Colloquium on Emerging Metabolomics**, Las Vegas, NV.

October 28, 2015. Vibrational Imaging of Intracellular Drug Membrane Aggregates and Precipitates (symposium chair), **Annual Meeting of the American Association of Pharmaceutical Scientists**, Orlando, FL

November 6, 2014 “Mechanistic Studies of Dose-Dependent Pharmacokinetic Half-Life” Drugs that Just Won’t Leave: from stars of the party to unwelcome guests (symposium chair); **Annual Meeting of the American Association of Pharmaceutical Scientists**, San Diego, CA.

November 2, 2014 “Oh Model, My Model: State-of-the-art Approaches to Study Drug Transport across Biological Membranes (Short course)” **Annual Meeting of the American Association of Pharmaceutical Scientists**, San Diego, CA.

July 7, 2014 “Probing the Role of Kupffer Cells in Hepatic Drug Disposition” **Drug Metabolism Gordon Research Conference**, Holderness School, NH

June 6, 2014 “Intracellular Drug Crystallization: Mechanisms and Applications” Department of Pharmaceutical Sciences, **University of Kentucky College of Pharmacy**, Lexington, KY.

March 5, 2014 “Clofazimine for Multidrug Resistant Tuberculosis: A Biopharmaceutical Approach to One Dose Point of Care Chemotherapeutic Regimens” Department of Pharmaceutical Sciences, **University of Maryland School of Pharmacy**, Baltimore, MD.

January 28, 2014 “Clofazimine for Multidrug Resistant Tuberculosis: A Biopharmaceutical Approach to One Dose Point of Care Chemotherapeutic Regimens” Indiana Institute of Personalized Medicine, Department of Pharmacology, **Indiana University School of Medicine**, Indianapolis, IN.

January 24, 2014 “Mapping Subcellular Drug Transport Pathways: Following Molecules Along the Roads Less Traveled” Division of Pharmaceutics and Translational Therapeutics, **University of Iowa College of Pharmacy**, Iowa City IA.

April 30, 2013 “Clofazimine Forms Intracellular Crystals in Macrophages, So...What?” **Mount Sinai School of Medicine**, New York, New York

March 28, 2013 “Clofazimine Forms Intracellular Crystals in Macrophages, So...What?” **Delaware Valley Drug Metabolism and Disposition Discussion Group**.

March 7, 2013 “Clofazimine for Multi-Drug Resistant Tuberculosis (and Why Intracellular Crystals May Matter)” **University of Texas at Austin**, Austin TX

January 25, 2013 “Clofazimine Forms Intracellular Crystals in Macrophages...So, What?”
Global Alliance for TB Drug Development, New York, New York.

December 8, 2012 “Resurrecting Clofazimine: Immune System Mediated Long-Term Bioaccumulation of Clofazimine “ (webinar) **National Institutes of Allergy and Infectious Diseases**, NIH.

October 18, 2012 “Microscopic Imaging of Intracellular Drug Sequestration: Clofazimine’s Amazing Story” (round table), **Annual Meeting of the American Association of Pharmaceutical Scientists**, Chicago, IL.

August 10, 2012 “Sintesis Quimica y Estudios Estructurales de Nuevos Materiales en Celulas y Seres Vivientes” **Department of Pharmaceutical Chemistry, Universidad Nacional de Colombia**, Bogota, Colombia.

August 9, 2012 “Estudio Detallado de la Funcion del Sistema Immunologico en la Distribucion de un Medicamento”, **Fundacion Instituto de Immunologia de Colombia**, Bogota, Colombia.

July 3, 2012, “Microscopic Imaging of Intracellular Drug Sequestration: Clofazimine’s Amazing Story” **Institute of Pharmaceutical Technology, Goethe University**, Frankfurt, Germany.

June 20, 2012 “Chemical synthesis of new materials inside cells and live animals” **Max Planck Institute of Colloids and Biointerfaces**, Potsdam, Germany.

June 14, 2012, “Microscopic Imaging of Intracellular Drug Sequestration: Clofazimine’s Amazing Story” **Institute of Pharmacy and Biochemistry, Guttenberg University**, Mainz, Germany.

November 15, 2011, “Image-2-Structure task by Chemreader” **Text retrieval conference (TREC) 2011, National Institute for Standards and Technology (NIST)**, Gaithersburg, MD.

October 22, 2011. “Towards a Quality by Design Paradigm for Inhaled Drug Products” **World Online Congress of Drug Discovery**. (online conference).

May 24, 2011 “Computational Modeling of Cellular Transport for Drug Development” **Instituto Nacional de Salud**, Santiago, Chile.

May 10, 2011 ‘Microscopic Imaging of Synthetic Organelles’ National Center for Microscopic Imaging Resources (NCMIR), **University of California –San Diego**, San Diego, CA.

May 9, 2011 “Intracellular Drug-membrane Aggregates: A lipid phase transition?” **The Scripps Research Institute, Stevens/Kuhn/Cherezov group**, San Diego, CA.

January 11, 2011 “The subcellular transport of small molecule drugs: a trip along the roads less traveled” **Dept of Biomedical Engineering, University of Michigan**, Ann Arbor, MI

January 11, 2011 “The subcellular transport of small molecule drugs: a trip along the roads less traveled” **Dept of Pharmaceutical Sciences, University of Michigan College of Pharmacy**, Ann Arbor, MI.

August 23, 2010 “Image-Based Automated Chemical Database Annotation with Ensemble of Machine-Vision Classifiers” **6th IEEE Conference on Automation Science and Engineering**, Toronto, CA.

June 25, 2010 “Modelo virtual del pulmon para el desarrollo de medicamentos” **Universidad del Norte**, Barranquilla, Colombia

May 10, 2010 “Chemical address tags of fluorescent bioimaging probes” **International Society for Analytical Cytology World Congress**, Seattle, WA.

April 21, 2010 “A predictive, physiologically-based pharmacokinetic model of the lung” **National Center for Computational Toxicology, Environmental Protection Agency**, Durham, NC.

March 3, 2010 “Xenosomes: Specialized organelles involved in xenobiotic transport and sequestration” **Department of Pharmaceutical Chemistry, University of Illinois at Chicago**, Chicago, IL

January 13, 2010 “Xenosomes: Specialized organelles involved in xenobiotic transport and sequestration” **University of Michigan Center for Computational Medicine and Biology**, Ann Arbor, MI

November 18, 2009 “A cell-based computational “Virtual Lung” model for pulmonary drug development” National Gene Delivery Laboratory, **Wuhan University**, Wuhan, China

November 17, 2009 “A cell-based computational “Virtual Lung” model for pulmonary drug development” School of Pharmacy, **Wuhan Institute of Technology**, Wuhan, China

October 26, 2009 “A multiscale cell based computational model for predicting small molecule drug transport in the lung” **Department of Pharmaceutical Sciences, University of Washington College of Pharmacy**, Seattle, WA.

October 12, 2009 “Chemical address tags of organelle targeted bioimaging probes” **University of Michigan Nanobiotechnology Institute**. Ann Arbor, MI

September 11, 2009 “A computational cell based pharmacokinetic model of the lung” **University of Michigan Center for Arrhythmia Research**, Ann Arbor, MI

August 30, 2009. The Cyberbiohybrid lung: a prototype cell based computational model for pulmonary drug development. **7th Annual World Congress on Alternatives & Animal Use in the Life Sciences**. Rome, Italy.

August 16, 2009. Chemreader: a tool for extracting chemical structure information from digital raster images. **238th Annual Meeting of the American Chemical Society**, Washington, DC.

June 29, 2009. A cell-based computational pharmacokinetic model of the lung. **CNRS and Université d'Evry** - Val d'Essonne, France

March 30, 2009 Intracellular drug pharmacokinetics: Modeling reveals insights beyond a well-stirred system. 2009 **AAPS Transporter Workshop: From Bench to Bedside**, Baltimore, MD

March 23, 2009 Multidrug efflux Pumps and intracellular drug pharmacokinetics. **Multidrug Efflux Transporters Gordon Research Conference**, Galveston , TX

November , 2009 Does Pgp facilitate nuclear efflux of DNA-targeting anticancer drugs? **AAPS Annual Meeting**, Atlanta, GA.

October 24, 2008 Computational Modeling of Drug Transport With Virtual Cells. **SUNY Buffalo, Department of Pharmaceutical Sciences**, Buffalo NY

September 4, 2008 From virtual cells to virtual worlds: exploring the use of computer simulations in pharmaceutical research and education. **Cornell University, College of Human Ecology**, Ithaca, NY.

May 20, 2008 Cheminformatic Assisted Image Arrays: An Approach for Mechanistic Analysis of High Content Screening Image Data Utilizing Cheminformatic Context **24th Annual Meeting of the International Society for the Advancement of Cytometry**, Budapest, Hungary.

May 18, 2008 Scoring Small Molecule Subcellular Localization Using Conditional Modeling of Textural Features in Microscopic Images. **24th Annual Meeting of the International Society for the Advancement of Cytometry**, Budapest, Hungary.

May 10, 2008 Drug Travel: An Amazing Voyage Across Intracellular Space (**SciArtMedia conference center, Second Life**)

March 16, 2008 CAIA = Cheminformatic Assisted Image Array **Life 2.0 Conference, Second Life**.

January 22, 2008 Chemical Address Tags and Cell Based Molecular Transport Simulators, **University of Minnesota College of Pharmacy**, Minneapolis, MN.

November 2, 2007 Chemical Address Tags and Cell Based Molecular Transport Simulators **National Institutes of Health**, Washington Dc.

June 7, 2007 Harnessing Cellular Pharmacokinetics for Microscopic Drug Targeting. **Drug Delivery 2007** San Diego, CA.

May 17, 2007. Transcellular transport: Can we understand Life without understanding transcellular permeability? Department of Cell and Developmental Biology. **Mount Sinai School of Medicine**, New York, NY

May 1, 2007. Cell-based Molecular Transport Simulators. **BIO-IT Annual World Congress**. Washington, DC.

April 25, 2007. 6D Image Analysis of Subcellular Transport. Department of Biological Sciences and the Center for Bioimage Informatics, **Carnegie Mellon University**.

April 14, 2007. Prospecting for live cell bioimaging probes with cheminformatic assisted image arrays (CAIA). **4th Annual Meeting of the International Society for Biomedical Imaging**. Washington DC

March 29, 2007 Cell-based pharmaceutical design of cell permeant-nontoxic, extracellular targeting molecules. **233rd National Meeting of the American Chemical Society**, Chicago, IL

November 1, 2006 Organelle-targeting Chemical Address Tags and CellPK Modeling; **American Association of Pharmaceutical Scientists National Meeting**, San Antonio, TX.

October 27, 2006 Molecular Transport & Delivery; **1st Annual University of Michigan College of Pharmacy Symposium**, Ann Arbor, MI.

October 5, 2006. Diseno Farmaceutico del Medicamento Ideal. **Universidad Nacional de Colombia**, Bogota, Colombia.

October 4, 2006. Ciencias Farmaceuticas: Oportunidades de Colaboración Internacional. **Universidad Nacional de Colombia**, Bogota, Colombia.

September 20, 2006 Cell-based Molecular Transport Simulators: Pharmacokinetic Prediction and Cheminformatic Exploration; Bioinformatics Program, **University of Michigan**.

August 16, 2006 MACE-Michigan Alliance for Cheminformatic Exploration. (Indiana-Michigan-Lilly ECCR conference, **Indiana University**, Indianapolis, IN.

July 17,2006 MACE-Michigan Alliance for Cheminformatic Exploration. **ECCR/MLSCN Joint Annual NIH Steering Committee Meeting**; Washington DC)

June 28, 2006 A Virtual Cell-based Simulator for Pharmaceutical Project Management, Risk Assessment and Decision Making. **4th International Conference on Computer Science and its Application**; San Diego, CA/

May 24,2006 Old Dogs New Tricks Cheminformatic Technical Session. **CHI Pharmaceutical World Congress**, Philadelphia, PA .

May 23, 2006 Identification of Chemical Address Tags Controlling the Subcellular Distribution of Candidate Drugs and Bioimaging Probes. **CHI Pharmaceutical World Congress**, Philadelphia, PA

February 14, 2006 Chemical Address Tags: Reformulating the Drug Delivery Problem At the Subcellular Level. Department of Pharmaceutical Chemistry. **University of Kansas**, Lawrence, Kansas.

January 24, 2006 Pharmacogenomics and the Future of Personalized Medicines (**Oral Drug Delivery Short Course, Drug Delivery Foundation**; Lake Tahoe, CA)

January 25, 2006 Subcellular Determinant of Transepithelial Transport (**Oral Drug Delivery Course, Drug Delivery Foundation**; Lake Tahoe, CA)

August 10, 2005 Experimental Design of Chemical Proteomic Experiments (**Drug Discovery Technology Annual Meeting**, Boston MA)

February 3, 2005 “The chemistry and biology of subcellular transport” DRA Minisymposium; **Danish University of Pharmaceutical Sciences**, Copenhagen, Denmark

November 23, 2004 “The Chemistry and Biology of Subcellular Transport” Apoptosis in Progress Seminar Series, **University of Michigan**, Ann Arbor, MI.

October 30, 2004 “Las implicaciones de la farmacogenomica en la salud latinoamericana” **IX Congreso de la Federacion Farmaceutica Sudamericana (FEFAS)**, Bogota, Colombia.

October 14, 2004 “Wolves in sheep’s clothes? Exposing the cancer cells’ shed vesicle cloak” **9th World Congress on Advances in Oncology and 7th International Symposium on Molecular Medicine**, Hersonissos, Greece.

October 6, 2004 “Cellular System Analysis of Subcellular Transport” Bioinformatics Program, **Life Sciences Institute**, Ann Arbor, MI.

September 15, 2004 “Screening for molecules with defined subcellular localizations” **Society of Biomolecular Screening Xth Annual Meeting**, Orlando FL.

September 11, 2004 “Subcellular targeting of anti-infectives”, **Paul Ehrlich Symposium**, Nuremberg, Germany.

June 8, 2004 “Vesicle shedding and breast cancer: Insights into a potential anticancer drug resistance mechanism”, **University of Miami School of Medicine**. Miami FL.

May 4, 2004 “Vesicle shedding and the Breast: Mechanistic Insights Into a Potential Drug Resistance Mechanism”; **University of Toledo College of Pharmacy**, Toledo OH.

April 2, 2004 “Pharmacogenomics: Is it really about genetic diversity or drug toxicity” **University of Michigan School of Public Health**, Ann Arbor, MI

March 20, 2004 “Genetics and Health Disparities”, **Institute for Social Research, University of Michigan**, Ann Arbor, MI

April 6, 2003 “Pharmacogenomics: Dilemmas and Challenges”, **University of Michigan Life Sciences, Values and Society Program**. Ann Arbor, MI

April 2, 2003 “Characterizing Drug Efflux in Vesicles Shed By Cancer Cells” **University of Michigan Comprehensive Cancer Center**, Ann Arbor, MI.

March 19, 2003 “A Pharmaceutical System Approach to Limb Regeneration”, **Department of Defense Persistence in Combat Workshop**, San Diego, CA.

January 21, 2003 “Bioinformatic Tools for Molecular Biopharmaceutics” **2nd International Molecular Biopharmaceutics Symposium**, Honolulu, HI.

November 8, 2002 “Pharmacogenomic Studies of Cellular Transport” **Globalization of Pharmaceutics Education Network**, Ann Arbor, MI.

October 7, 2002 “Supertargeting: A Biological Approach to Chemical Specificity”, Department of Chemistry, **University of Illinois at Chicago**, Chicago, IL (Host: Dr. Gabriel Fenteany)

July 10, 2002. **National Cancer Institute Developmental Therapeutics Program**. (Host: Dr. Ed Sausville).

Research Support

Ongoing

R01 GM127787

Period: 2018-2022

NIGMS/NIH

L-Carnitine as a Metabolic Biomarker of Drug Toxicity Risk

PI: G. Rosania (30% effort)

Pending

R01 AT 010381-01 (Harris & Harte, MPI)

Period: 9/1/19-8/31/24

Cannabinoid interactions with central and peripheral pain mechanisms in osteoarthritis of the knee

Co-I: G. Rosania (15% effort).

Completed

NIH RO1GM078200

Period 2006-2018

Chemical Address Tags: A Cheminformatics & Image Data Management and Analysis Plan

PI: G. Rosania (30% effort)

UMCCC Prostate Cancer SPORE award

G. Rosania (Co-I);

Period 2017-2018

PI: Xueding Wang

M-Cubed
Macrophage Targeted Contrast Agents for Photoacoustic Imaging of Joint Disease
Period 2016-2017
PI: Xueding Wang

Upjohn-Vahlteich Research Award
Grant#G002389; Period: 2002-03
“Mechanistic studies of cell type selective targeting”
Principal Investigator: G Rosania

Bioinformatics Research Grant
Grant#N003926; Period: 2002-03
“A Bioinformatic Approach to Drug Targeting”
Principal Investigator: G.Rosania

Invitrogen Research Tools Development Award
Grant#N004324; Period 2003-2004
“A flow cytometric analysis of transcription factor translocation”
Principal Investigator, G.Rosania

PHRMA Foundation
Period: 2005-2007
PI: G. Rosania

NIH R21CA104686
Period 2005-2007
Anticancer Drug Expulsion in Shed Vesicles
Principal Investigator: G. Rosania (15%effort)

NIH P20HG003890
Period 2005-2008
MACE: Michigan Alliance for Cheminformatic Exploration
Co-PI: G. Rosania (15% effort); PI: K. Shedden