

CURRICULUM VITAE

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EDUCATION

6/78 B.A. Chemistry, Wittenberg University, Springfield, OH
6/83 M.S. Biochemistry, Indiana University School of Medicine, Indianapolis, IN
12/88 Ph.D. Organic Chemistry, University of Utah, Salt Lake City, UT

ACADEMIC APPOINTMENTS

10/81 – 5/82 Graduate Research Assistant, Department of Biochemistry, Indiana University School of Medicine, Arthur Schultz, Indianapolis, IN
6/82 – 7/87 Graduate Research Assistant, Department of Chemistry, University of Utah, Salt Lake City, UT, with Professor C. Dale Poulter
8/87 – 7/89 Postdoctoral Fellow, Department of Biochemistry and Biophysics, University of California, San Francisco, CA, with Professor Daniel V. Santi
7/89 – 6/94 Assistant Professor of Medicinal Chemistry, Department of Medicinal Chemistry and Pharmacognosy, Purdue University, West Lafayette, IN
7/94 – 6/99 Associate Professor of Medicinal Chemistry, Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University, West Lafayette, IN
7/98 – 7/03 Associate Head, Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University, West Lafayette, IN
7/99 – Present Professor of Medicinal Chemistry & Molecular Pharmacology, Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University, West Lafayette, IN
10/01 – 6/05 Founding Co-Director, Bindley Bioscience Center, Discovery Park, Purdue University, West Lafayette, IN
7/89 – present Member of the Purdue Cancer Center
2001 – 2010 Executive Team, Bindley Bioscience Center, Purdue Discovery Park, Purdue University, West Lafayette, IN
2006-2007 Visiting Professor, Scripps Institute of Oceanography, La Jolla, CA
2008-2012 Director, Molecular Discovery and Evaluation Shared Resource, Purdue Center for Cancer Research, West Lafayette, IN

PROFESSIONAL EMPLOYMENT

7/78 - 7/79 Research Staff, Indiana University School of Medicine, Indianapolis, Indiana
7/79 - 9/81 Associate Organic Chemist, Eli Lilly Labs, Indianapolis, Indiana
4/05-12/06 Founder and Chief Scientific Officer for Tienta Sciences, Indianapolis, IN
3/2016-present Founder and Chief Scientific Officer for Amplified Sciences, West Lafayette, IN

HONORS AND AWARDS

1978 American Institute of Chemists Undergraduate Award
1986 University of Utah Graduate Student Research Prize
1988 NIH Postdoctoral Trainee
1989 Damon Runyon-Walter Winchell Fellowship
1998 Pharmacy Minority Affairs and Diversity Advocacy Award
1999 Purdue University Scholar
2004 Walther Cancer Institute Research Prize
2007 Purdue Cancer Center Lions Club Award
2012 Fellow of the American Academy for Advancement of Science
2015 Chaney Faculty Scholar Research Award, College of Pharmacy Purdue University
2019, 2022 Teacher of the Year, B.S. Pharmaceutical Sciences Purdue University

PROFESSIONAL SOCIETY MEMBERSHIPS

American Chemical Society, Divisions of Organic, Biological, and Medicinal Chemistry
 American Association for the Advancement of Science
 American Society for Biochemistry and Molecular Biology
 American Society of Pharmacology and Experimental Therapeutics
 American Association of Pharmaceutical Scientists
 American Association of University Professors
 Kappa Psi Purdue Chapter
 Sigma Xi Scientific Research Society

PROFESSIONAL AND SCIENTIFIC ACTIVITIES

1992 – Present Member of the Purdue Cancer Center
 1997 American Chemical Society, Division of Biological Chemistry Nomination Committee
 1999 Organizer for XIX Midwest Enzyme Chemistry Conference
 2003 – 2010 Full Member of the Bindley Bioscience Center, Purdue Discovery Park
 2005-2006 Steering Committee for Indo-US Initiative on Biotechnology Entrepreneurism
 2005-2006 Steering Committee for International Congress for Bionanotechnology, Society for Biological Engineering
 2007-2017 Science Foundation Ireland, Chemistry Peer Review Panel; mail in review 2013, on site 2017

NIH Review Panels

1997-2001 Bioorganic and Natural Products Chemistry
 2001 – 2009 NCI Review ZRG Panel P01 (1 panel/year)
 2005 SEP panels; Natural Products Roadmap, Bioengineering Sciences and Technologies
 2006 National Cancer Institute Review Panel, K99 program
 2006-2009 ad hoc Synthetic and Biological Chemistry B
 2009-2012 NCI ZRG panels for Centers P30 (4)
 2010-2014 Synthetic Biological Chemistry B (Chair)
 2014 ZCA1 RPRB-S and ZCA1 RTRB-L
 2015 ZCA1 GRB-P M1 S, ZHL1 CSR-S (M1) 1,
 2015 ad hoc DMP, MSFA, BST-55
 2016 ZRB-BST-F-55, ZHL1-PPG-S-M1, NCI-A-RTRB-(P1), NCI-A RTRB-I (R1)
 2017 ZRG1-BST-F-55, ZCA1-GRB-I-M2, ZHL1-PPG-S-M1
 2018 NCI-A-RTRB-G-E1, ZCA1-GRB-I-M2; ZHL1-PPG-S-M1; Chair, BST-55
 2019 to 2021 Chair, BST-55 HTP Screening (3 meetings/year); ZCA1-GRB-S-M1; ZAI1-CB-W-S2
 2023 ZRG1 MCST - M (81)

CONSULTING ACTIVITIES

1993-1999 Monsanto Life Sciences Co., St. Louis, MO (agricultural and pharmaceutical sciences)
 1999-2000 Pharmacia Corp Infectious Diseases, Kalamazoo, MI
 2003-2006 Inproteo Inc and Scientific Advisory to subsidiary start-up companies
 2005 Mayo Clinic Research Infrastructure for Proteomics
 2006 Conflict of Interest Review Panel, Indiana University
 2008 Indiana Technology Group, West Lafayette, IN
 2012-2013 AsedaSciences Inc, West Lafayette, IN
 2013-2016 Scientific Advisory Board, NINDS CounterAct Program U54 NS079201 (PI: McRae and Peterson)
 2017-present Scientific Advisory Board Alanus Bioscience, San Francisco CA
 2020-present Advisor to Avantxy, Miami FL

PEER REVIEWED FULL ARTICLES

Publications not included below: Conference proceedings, Patents, Opinions, News Articles

For full listing see:

https://scholar.google.com/citations?hl=en&user=0Bq12R8AAAAJ&view_op=list_works&sortby=pubdate

- Davisson, V. J., Neal, T. R., and Poulter, C. D. (1985) "Farnesylpyrophosphate synthetase. A case for common electrophilic mechanisms for prenyltransferases and terpene cyclases" *Journal of American Chemical Society* **107**, 5277-79.
- Davisson, V. J., and Schulz, A. R. (1985) "The purification and steady-state kinetic behavior of rabbit heart mitochondrial NAD(P)⁺ malic enzyme" *Biochemical Journal* **225**, 335-42.
- Davisson, V. J., Woodside, A. B., and Poulter, C. D. (1985) "Synthesis of allylic and homoallylic isoprenoid pyrophosphates" *Methods in Enzymology* **110**, 130-44.
- Davisson, V. J., Woodside, A. B., Neal, T. R., Stremler, K. E., Muehlbacher, M., and Poulter, C. D. (1986) "Phosphorylation of isoprenoid alcohols" *Journal of Organic Chemistry* **51**, 4768-4779.
- Davisson, V. J., Mark Zabriskie, T., and Poulter, C. D. (1986) "Radiolabeled allylic isoprenoid pyrophosphates: Synthesis, purification, and determination of specific activity" *Bioorganic Chemistry* **14**, 46-54.
- Davisson, V. J., Davis, D. R., Dixit, V. M., and Poulter, C. D. (1987) "Synthesis of nucleotide 5'-diphosphates from 5'-O-tosyl nucleosides" *Journal of Organic Chemistry* **52**, 1794-1801.
- Davisson, V. J., Sharp, T. R., and Poulter, C. D. (1988) "Negative ion fast atom bombardment mass spectrometry of isoprenoid diphosphates and related analogs" *Bioorganic Chemistry* **16**, 111-123.
- Pinter, K., Davisson, V. J., and Santi, D. V. (1988) "Cloning, sequencing, and expression of the *Lactobacillus casei* thymidylate synthase gene" *DNA* **7**, 235-41.
- Davisson, V. J., Sirawaraporn, W., and Santi, D. V. (1989) "Expression of human thymidylate synthase in *Escherichia coli*" *Journal of Biological Chemistry* **264**, 9145-9148 [*published erratum appears in J Biol Chem 1994 269(48):30740*].
- Mautz, D. S., Davisson, V. J., and Poulter, C. D. (1989) Synthesis of o-geranyl (1-thio)diphosphate. *Tetrahedron Letters* **30**, 7333-7336.
- Santi, D. V., Pinter, K., Kealey, J., and Davisson, V. J. (1990) "Site-directed mutagenesis of arginine 179 of thymidylate synthase. A nonessential substrate-binding residue" *Journal of Biological Chemistry* **265**, 6770-6775.
- Schiffer, C. A., Davisson, V. J., Santi, D. V., and Stroud, R. M. (1991) "Crystallization of human thymidylate synthase" *Journal of Molecular Biology* **219**, 161-163.
- Annand, R. R., Kozlowski, F. F., Davisson, V. J., and Schwab, J. M. (1993) "Mechanism-based inactivation of *Escherichia coli* .beta.-hydroxydecanoyl thiol ester dehydrase: assignment of the imidazole nitrogen-15NMR resonances and determination of the structure of the alkylated histidine" *Journal of American Chemical Society* **115**, 1088-94.
- Davisson, V. J., Neal, T. R., and Poulter, C. D. (1993) "Farnesyl-diphosphate synthase. Catalysis of an intramolecular prenyl transfer with bisubstrate analogs" *Journal of American Chemical Society* **115**, 1235-45.
- Davisson, V. J., and Poulter, C. D. (1993) Farnesyl-Diphosphate Synthase. "Interplay between Substrate Topology, Stereochemistry, and Regiochemistry in Electrophilic Alkylations" *Journal of American Chemical Society* **115**, 1245-1260.
- Firestine, S. M., and Davisson, V. J. (1993) "A tight binding inhibitor of 5-aminoimidazole ribonucleotide carboxylase" *Journal of Medicinal Chemistry* **36**, 3484-6.
- Klem, T. J., and Davisson, V. J. (1993) "Imidazole glycerol phosphate synthase: the glutamine amidotransferase in histidine biosynthesis" *Biochemistry* **32**, 5177-5186.
- Moore, J. A., Parker, A. R., Davisson, V. J., and Schwab, J. M. (1993) "Stereochemical course of the *Escherichia coli* imidazole glycerol phosphate dehydratase reaction" *Journal of the American Chemical Society* **115**, 3338-3339.

- Davisson, V. J., Deras, I. L., Hamilton, S. E., and Moore, L. L. (1994) "A plasmid-based approach for the synthesis of a histidine biosynthetic intermediate" *Journal of Organic Chemistry* **59**, 137-143.
- Mueller, E. J., Meyer, E., Rudolph, J., Davisson, V. J., and Stubbe, J. (1994) "*N*⁵-carboxyaminoimidazole ribonucleotide: evidence for a new intermediate and two new enzymatic activities in the *de novo* purine biosynthetic pathway of *Escherichia coli*" *Biochemistry* **33**, 2269-2278.
- Firestine, S. M., and Davisson, V. J. (1994) "Carboxylases in *de novo* purine biosynthesis. Characterization of the *Gallus gallus* bifunctional enzyme" *Biochemistry* **33**, 11917-11926.
- Firestine, S. M., Poon, S. W., Mueller, E. J., Stubbe, J., and Davisson, V. J. (1994) "Reactions catalyzed by 5-aminoimidazole ribonucleotide carboxylases from *Escherichia coli* and *Gallus gallus*: a case for divergent catalytic mechanisms" *Biochemistry* **33**, 11927-11934.
- Ma, W. P., Hamilton, S. E., Stowell, J. G., Byrn, S. R., and Davisson, V. J. (1994) "Sequence specific cleavage of messenger RNA by a modified ribonuclease H" *Bioorganic & Medicinal Chemistry* **2**, 169-179.
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- Tesmer, J. J., Stemmler, T. L., Penner-Hahn, J. E., Davisson, V. J., and Smith, J. L. (1994) "Preliminary X-ray analysis of *Escherichia coli* GMP synthetase: determination of anomalous scattering factors for a cysteinyl mercury derivative" *Proteins* **18**, 394-403.
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- Parker, A. R., Moore, J. A., Schwab, J. M., and Davisson, V. J. (1995) "*Escherichia coli* imidazoleglycerol phosphate dehydratase: spectroscopic characterization of the enzymic product and the steric course of the reaction" *Journal of the American Chemical Society* **117**, 10605-10613.
- Schiffer, C. A., Clifton, I. J., Davisson, V. J., Santi, D. V., and Stroud, R. M. (1995) "Crystal structure of human thymidylate synthase: a structural mechanism for guiding substrates into the active site" *Biochemistry* **34**, 16279-16287.
- Chen, X. Y., Wang, M., Chen, Y., Davisson, V. J., and Heinsteins, P. (1996) "Cloning and heterologous expression of a second (+)-delta-cadinene synthase from *Gossypium arboreum*" *Journal of Natural Products* **59**, 944-951.
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- Schmuke, J. J., Davisson, V. J., Bonar, S. L., Gheesling Mullis, K., and Dotson, S. B. (1997) "Sequence analysis of the *Candida albicans* ADE2 gene and physical separation of the two functionally distinct domains of the phosphoribosylaminoimidazole carboxylase" *Yeast* **13**, 769-776.
- Firestine, S. M., Misialek, S., Toffaletti, D. L., Klem, T. J., Perfect, J. R., and Davisson, V. J. (1998) "Biochemical role of the *Cryptococcus neoformans* ADE2 protein in fungal *de novo* purine biosynthesis" *Archives of Biochemistry & Biophysics* **351**, 123-134.
- Zhang, P., Johnson, W. T., Klewer, D., Paul, N., Hoops, G., Davisson, V. J., and Bergstrom, D. E. (1998) "Exploratory studies onazole carboxamides as nucleobase analogs: thermal denaturation studies on oligodeoxyribonucleotide duplexes containing pyrrole-3-carboxamide" *Nucleic Acids Research* **26**, 2208-2215.
- Deras, M. L., Chittur, S. V., and Davisson, V. J. (1999) "*N*²-hydroxyguanosine 5'-monophosphate is a time-dependent inhibitor of *Escherichia coli* guanosine monophosphate synthetase" *Biochemistry* **38**, 303-310.

- D'Ordine, R. L., Klem, T. J., and Davisson, V. J. (1999) "*N*¹-(5'-Phosphoribosyl)adenosine-5'-Monophosphate Cyclohydrolase: Purification and Characterization of a Unique Metalloenzyme" *Biochemistry* **38**, 1537-1546 [Addition/Correction 1999, **38**, 4904].
- Chittur, S. V., Chen, Y., and Davisson, V. J. (2000) "Expression and purification of imidazole glycerol phosphate synthase from *Saccharomyces cerevisiae*" *Protein Expression & Purification* **18**, 366-377.
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- Chittur, S. V., Klem, T. J., Shafer, C. M., and Davisson, V. J. (2001) "Mechanism for acivicin inactivation of triad glutamine amidotransferases" *Biochemistry* **40**, 876-887.
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- Klem, T. J., Chen, Y., and Davisson, V. J. (2001) Subunit interactions and glutamine utilization by *Escherichia coli* imidazole glycerol phosphate synthase. *Journal of Bacteriology* **183**, 989-996.
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- Wu, W., Bergstrom, D. E., and Davisson, V. J. (2003) "A combination chemical and enzymatic approach for the preparation of azole carboxamide nucleoside triphosphate" *Journal of Organic Chemistry* **68**, 3860-3865.
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- Sinha, S. C., Chaudhuri, B. N., Burgner, J. W., Yakovleva, G., Davisson, V. J., and Smith, J. L. (2004) "Crystal structure of imidazole glycerol-phosphate dehydratase: duplication of an unusual fold" *Journal of Biological Chemistry* **279**, 15491-15498.
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- Amaro, R. E., Myers, R. S., Davisson, V. J., and Luthey-Schulten, Z. A. (2005) "Structural elements in IGP synthase exclude water to optimize ammonia transfer" *Biophysical Journal* **89**, 475-487.
- Adelfinskaya, O., Davisson, V. J., and Bergstrom, D. E. (2005) "Synthesis and Structural Analysis of Oxadiazole Carboxamide Deoxyribonucleoside Analogs" *Nucleosides Nucleotides Nucleic Acids* **24**, 1919-1945.
- Drachev, V. P., Nashine, V. C., Thoreson, M. D., Ben-Amotz, D., Davisson, V. J., and Shalaev, V. M. (2005) "Adaptive silver films for detection of antibody-antigen binding" *Langmuir* **21**, 8368-8373.
- Drachev, V. P., Thoreson, M. D., Nashine, V., Khaliullin, E. N., Ben-Amotz, D., and Davisson, V. J. (2005) "Adaptive silver films for surface-enhanced Raman spectroscopy of biomolecules" *Journal of Raman Spectroscopy* **36**, 648-656.
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- Zhang, D., Xie, Y., Deb, S. K., Davisson, V. J., and Ben-Amotz, D. (2005) "Isotope Edited Internal Standard Method for Quantitative Surface-Enhanced Raman Spectroscopy" *Analytical Chemistry* **77**, 3563-3569.
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- Deb, S. K., Davis, B., Ben-Amotz, D., Davisson, V. J. (2008) "Accurate Concentration Measurements Using Surface-Enhanced Raman and Deuterium Exchanged Dye Pairs" *Applied Spectroscopy* **62**, 1001-1007. doi: 10.1366/000370208785793290. **PMID: 18801239**

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ISSUED PATENTS (PENDING OR ABANDONED NOT INCLUDED)

US7283228B2	Process and Apparatus for Testing by Spectral Analysis of Solid Deposits Derived from Liquid Mixtures	Issued	10/16/2007
US8765950B2	Reagents for Biomolecular Labeling, Detection, and Quantification Employing Raman Spectroscopy	Issued	07/01/2014
EP10778194.0A	Large area Scanning Apparatus for Analyte Quantification by Surface Enhanced Raman Spectroscopy and Method of Use	Issued	05/24/2016
US 20130052746 A1	Higher-order structured dyes with enhanced optical features	Issued in US, China, Japan, EP, South Korea	11/17/2015-present
US10760113B2	Kinase activity detection methods	Issued	09/01/2020
US11400130B2	Inhibitors for proliferating cell nuclear antigen and uses	Issued	08/02/2022
US11542257	Arylnaphthalene compounds as vacuolar-ATPase inhibitors and the use thereof	Issued	01/03/2023

FUNDING This list excludes student and postdoctoral fellowships, which total 19 over 30 years, including 3 postdoctoral NIH F32 awardees, 3 NIH T32 postdoctoral trainees, and six pre-doctoral student fellowships from private foundations

Current:

Source: **NIH R01 AI28364A1** Davisson role PI (2.4 cal) and Davy (co-PI) 8/12/2019-7/31/2023

Title: *Antiviral Lead Identification to Treat Filoviral Infections*

Goals/Aims: The project goal to define antiviral drug leads for diseases caused by Ebola and Marburg filoviruses.

Source: **NIH U54 NS112107** Macrae (PI) and Peterson (co-PI) 8/1/2019-5/31/2024

Davisson Role: co-Investigator Director of Pharmaceutical Sciences Core (2.4 cal)

Title: *Advancing Novel Cyanide Countermeasures*

Goals/Aims: The overarching objective of our proposed center is to deliver cyanide countermeasure(s) that meet the BARDA definition of readiness for advanced development. The Pharmaceutical Sciences Core (PSC) aims to provide drug development capabilities needed by the Center to enable the rapid translation of new chemical entities (NCEs) useful for cyanide countermeasures.

Source: **Amplified Sciences, Inc** Davisson Role: PI (1.2 cal) 5/1/2020-2/28/2024

Title: Chemical Sensors for Early Detection.

Goals/Aims: This public-private project involves collaboration to transferring chemical technologies for clinical biomarker detection from Purdue to the private entity. The core technology involved has been patented by Purdue and exclusively licensed to the private company. A joint publication on the use of the technology and expertise will be evidence of the completion of the transfer process.

Source: **Defensewerx** Davisson Role: project PI (2.4 cal) 6/1/2022-12/06/2023

Title: ICWERX Biotechnology, Biosurveillance

Goals/Aims: This project involves the development of inflammatory biomarkers detection for wearable devices and individual health monitoring.

Source: **POINT BioPharma** Davisson Role: project PI (1.2 cal) 4/1/2023-3/31/2024

Title: Performance and Optimization of Lead Ligands for Radiopharmaceuticals

Goals/Aims: The project objectives are to implement an in vivo testing workflow that enables selection of lead candidates based upon biodistribution performance.

Pending:

Application: NIH R01GM140364-0A1 Total cost request \$2,446,098/ 4 y

Title: Flexible Binding Sites for Modulators of PCNA-Protein Interactions

Role: Contact PI, (3.0 cal)

Review panel: Chemical Biology Probes 2/16/2023

Application: UG3AI178181 Total cost request \$2,634,533/ 5 y

Title: Platinum-Based Countermeasures and Combinations with Protective Agents

Role: Davisson, PI (2.4 cal)

Review panel ZRG1 KUDS-F (50) 3/31/2023

New Application: NIH R01 NIGMS Total request estimate \$1,500,000/4 y

Title: *Reverse Hijacking the HPV E6 Protein Interactome*

Role: Contact PI, Das, co-PI Davisson 1.8 cal

Target Date: 02/5/2023

Planned (2023):

Competitive Renewal: NIH R01 NIAID Total request estimate \$3,000,000/ 5 y

Title: *Antiviral V-ATPase Inhibitors via Distinct Mechanisms of Action*

Role: Davisson. PI 2.4 cal Davey co-PI Stahelin co-I Target Date: 3/05/2023

Past:

- V. J. Davisson
- a. Source: Purdue Institute for Drug Discovery COVID-19 Award \$25,000 1/1/2021-12/31/2021
Title: Broad Spectrum Host Targeted Antiviral Agents to Treat Coronaviral Infections Role: PI
 - b. Purdue Center for Cancer Research \$7500 2/1/2021-6/30/2021
Title: DNA Encoded Library Screens for HPV-E6 Inhibitors Role: PI
 - c. Davisson, PI, Wendt co-I, PCCR Phase 1 Concept Award *“Nuclear Kinase Targeting in Metastatic Breast Cancer”*
3/1/2016-8/30/2017 (\$10,000) Phase 2 Award 6/17/2019-6/16/2020 (\$25,000)
 - d. EVPR NIH Programs R01 Davisson, PI, Davey, co-PI, Knipp, co-I, Hockerman, co-I 12/1/15–6/30/17
“Antiviral Lead Identification to Treat Filovirus Infections” (\$27,000)
 - e. Purdue University Center for Cancer Research \$40,000 3/22/2016-04/30/2017
Title: Synthetic Lethal Antagonist Combinations Targeting DNA Repair Protein Interactions
 - f. Indiana Clinical and Translational Sciences Institute (Davisson, Androphy MPI), *“Drug-like inhibitors of HPV-16 E6”* 11/01/2014-10/31/2015 (\$75,000).
 - g. Leidos subcontract (Christian, PI, Davisson, co-PI) *“Raman Active Dyes”* (\$252,000) 9/16/2013-12/31/2014
 - h. NIH R33CA140084-01A1 *“Specific Detection of Cervical Cancers Using Cytometry-Based Molecular Diagnostics”*
J. P. Robinson, PI/V. J. Davisson PI/Shroyer PI (10% effort) 10/01/2010-09/30/2013 (total cost \$1.54 M).
 - i. Indiana University ITRAC Androphy, PI, Davisson (co-PI) *“Small Molecule Inhibitors of Oncogenic Human Papillomavirus”* 11/01/2012-10/31/2013 (\$50,000).
 - j. Showalter Research Trust Jones, LaCount 7/01/2012-6/30/2013 Selective Antagonism of v-ATPase to Treat Viral Infection total award (\$75,000).
 - k. DoD, CDMRP BC095812 Idea Award *“Targeting PCNA Phosphorylation in Breast Cancer”* V. J. Davisson, PI (15% effort) 03/01/2010 – 02/28/2012 (total award \$545,690)
 - l. NIH Indiana Clinical Translational Science Institute, *“Advancement of Tumor Targeted Anticancer Agents”*, V. J. Davisson, PI/P. Helquist, PI 07/01/10-06/30/11 (total cost \$75,000).
 - m. Beckman Coulter Inc. Beckman Coulter Sponsored Research Agreement V. J. Davisson, PI (5% effort)/J. P. Robinson, PI 10/01/2009-09/30/2012 (total cost \$300,000).
 - n. NIH R21DA024193-01 *“Lipodomic Profile of Endocannabinoids from Neuronal Cells”* E. Barker, PI/V. J. Davisson, PI (5% effort) 05/01/2009-04/30/2011 (total award \$419,375)
 - o. NIH R56 AI 89511-01 *“A Distributed Clinical and Biodefense National Network for Rapid Organism Identification”*
J. P. Robinson/A. Bhunia, PI/Davisson, co-PI (10% effort) 08/06/2010-07/31/2011 (total cost \$1.3 M)
 - p. Amgen Corporation *“Identification and Application of Cell-based Assays for Lead Optimization”* V. J. Davisson, PI (5% effort)/J. P. Robinson, co-PI 12/01/2007-11/30/2010 (total award \$663,458)
 - q. Amgen Corporation *“Feasibility of Measuring Cardiac Mitochondrial Membrane Potential in the Intact Heart of Anesthetized Rats”* J. P. Robinson, PI/V. J. Davisson co-PI (5% effort) 01/01/2009-12/31/2010 (total award \$221,321)
 - r. NSF-IDBR DBI 0754740 *“Development of a Multivariant Hyper Spectral Instrument for High Resolution Chemical Imaging of Cell Structure and Dynamics”* Ben Amotz PI/Davisson, co-PI (5% effort) 05/01/2008-04/30/2011 (total award \$522,375)
 - s. NIH P30CA23168-30 Support for Purdue Center for Cancer Research, T. Ratliff, PI and Director *“Molecular Discovery and Evaluation Shared Resource”* Director, V. J. Davisson (5% effort).
 - t. DoD CDMRP BC064015 Synergistic Idea Award *“Development of a Breast Cancer Selective Therapeutic”* R. Hickey, PI/V. J. Davisson, PI (5% effort), G. Sledge, co-PI 10/01/07-9/30/09 (Total award \$500,000). No cost extension until 9/30/10.

- u. NIH R21 NS061667-01 "High-throughput Chemotyping of Yeast Signature Strains Reflecting Hsp90 Biology" V. J. Davisson, PI/T. Hazbun, PI 9/30/07-8/31/09 (Total award \$156,000)
- v. Millipore Corporation "Development of Isotope-encoded Raman Active Dyes for Antibody Based Detection" V. J. Davisson, PI (10% effort) 4/1/08-3/31/09 (Total award \$170,000).
- w. Millipore Corporation Development of Isotope-encoded Raman Active Dyes for Non-amplified Nucleic Acid Quantification" V. J. Davisson, PI (10% effort) 12/01/2009 – 6/01/2010 (total award \$50,000)
- x. Purdue Research Foundation "Reagents for Biomolecular Labeling, Detection, and Quantification Employing Raman Spectroscopy" V. J. Davisson, PI 12/01/08-8/31/09 (Total award \$56,000).
- y. Discovery Park Seed Grant "Consortium for Classification of Microbial Biodiversity in the Caucasus Region" V. J. Davisson, PI 4/1/08-3/31/09 (Total award \$50,000).
- z. National Institutes of Health (RO1 GM53155-10) "Modified Nucleosides as Tools for Molecular Biology" V. J. Davisson, (15% effort) 12/01/03-11/30/07 (total costs \$1,342,250)
- aa. National Institutes of Health, (RO1 GM067195-05) "Structure and Mechanisms of Glutamine Dependent Enzymes" V. J. Davisson, PI, (15% effort), 12/01/03-11/30/07, (Total cost \$1,223,750).
- bb. National Institutes of Health (R33 DK070290-03) "Tools for Differential Metabolomics" F. Regnier PI, V. J. Davisson, co-PI (10% effort), 09/30/04-09/29/07, (Total cost \$4,719,117).
- cc. Indiana Proteomics Consortium "Microarrays by Ion Soft-Landing" R.G. Cooks, PI, V. J. Davisson, co-PI 4/8/02-4/7/05 (total costs \$2,411,600).
- dd. National Institutes of Health/NCRR Shared Instrumentation Grant (PAR-02-036) "Q-TOF Mass Spectrometer for Peptide and Protein Analysis" F. Regnier, PI, V. J. Davisson, co-PI 4/01/04-3/31/05 (total costs \$500,000).
- ee. University of Norte Dame/Army Medical Research Acquisition Activity, (17-03-1-0206) "Marine Macrolides as Potential Anti-Cancer Drugs" V. J. Davisson, PI (5% effort) 4/1/03-3/31/05 (total costs \$123,000).
- ff. Indiana Proteomics Consortium "Surface-Enhanced Raman Spectroscopy Detector for Applications in Proteomics" D. Ben Amotz PI, V. J. Davisson, co-PI (5% effort) 4/8/02-4/7/05 (total costs \$73,268).
- gg. National Science Foundation, NSF 01-171, "Development of a Kingdon Trap Mass Spectrometer for High Performance Chemical and Biochemical Analysis" R. G. Cooks PI, V. J. Davisson co-PI, (5% effort) 7/1/02-6/30/05, (total costs \$736,226).
- hh. Purdue Cancer Center "Mechanism of Drug Action by the Antitumor Agent Brefeldin", V. J. Davisson PI, M. Cushman, co-PI 4/1/01-3/31/02 (total costs \$30,000).
- ii. Purdue University Scholars Fund, 10/19/99 – 9/30/04, (\$50,000).
- jj. National Institutes of Health (NIH 1 R21 CA91116-01) "Enzyme Targets, Apoptosis and Purine Metabolism," V. J. Davisson, PI (15% effort), 4/01/01-3/31/03 (total costs \$396,000).
- kk. National Institutes of Health (NIH RO1 GM53155) "Modified Nucleosides as Tools for Molecular Biology" D. E. Bergstrom PI, V. J. Davisson, co-PI (15% effort), 7/01/96-3/31/02 (total costs \$1,483,485).
- ll. Monsanto Agricultural Co., "Enzymes and Agrichemical Discovery," V. J. Davisson, PI, 1/1/97-12/31/98 (total costs \$130,974).
- mm. National Institutes of Health (RO1-GM45756-09), "Enzymes of the Histidine Biosynthetic Pathway," V.J. Davisson, PI, 7/1/96-6/30/00, (total costs \$1,031,511).
- nn. Purdue Cancer Center Indiana Elks Cancer Research Award, "The XMP Binding Site of Guanosine Monophosphate Synthetase," V.J. Davisson, PI, 7/1/98-6/30/99, (total costs \$10,000).
- oo. Purdue Research Foundation-David Ross Fellowship, "Metabolic Targets for Antifungal Agents," 5/1/98-4/30/99 (total costs \$19,800).

- pp. Showalter Trust Fund (0ZA26) "A Center for the Study of Rapid Kinetics in Biological Systems," V. J. Davisson, PI, 7/1/96-6/30/97, (total costs \$50,000).
- qq. Searle/Monsanto Pharmaceuticals, "Design and Synthesis of Mechanism-Based Inhibitors for Fungal *de novo* Purine Biosynthesis," (total costs \$95,000), 4/1/95-3/31/1996.
- rr. Purdue Research Foundation-David Ross Fellowship, "Bifunctional Inhibitors of a Glutamine Amidotransferase," 6/1/94-5/31/96 (total costs \$19,800).
- ss. Monsanto Agricultural Co., "Histidine Biosynthesis as a Target for Agrichemical Discovery," V. J. Davisson, PI, 1/1/94-12/31/97 (total costs \$142,500).
- tt. National Institutes of Health BRS Shared Instrumentation Grant (RR07302-01), "300 MHz NMR Spectrometer for Medicinal Chemistry Research," J. Schwab and V. J. Davisson Co-PI, (total costs \$322,000) 9/1/92-8/31/93.
- uu. National Institutes of Health (RO1-GM45756-05), "Enzymes of the Histidine Biosynthetic Pathway," V.J. Davisson, PI, 7/1/91-6/30/96, (total costs \$1,015,720).
- vv. Purdue Research Foundation-David Ross Fellowship, "Catalytic Mechanism of an Enzyme Mediated Amadori Rearrangement," 6/1/92-5/31/94, (total costs \$19,800).
- ww. American Heart Association (#206670), "Structure and Mechanism of A Bifunctional Enzyme," V.J. Davisson, PI, (not reimbursed), 7/1/91-6/30/93 (total costs \$90,000)
- xx. Showalter Trust Fund (6056), "Biotechnology Center for Protein Design and Synthesis," V.J. Davisson, PI, 7/1/90-7/1/92 (total costs \$46,883).
- yy. American Cancer Society/Purdue Cancer Center (IN 17-31) "The Function and Mechanism of a Bifunctional Protein in the De Novo Purine Biosynthetic Pathway," V. J. Davisson, PI, 8/1/90-7-31-91 (total costs \$12,500).
- zz. American Chemical Society-Petroleum Research Fund (ACS-PRF 23004-G4), "Enzymes of the Histidine Biosynthetic Pathway," V.J. Davisson, PI, 9/1/90-9/1/92 (total direct \$18,000)

INVITED LECTURES

Monsanto Agricultural Research Corporation, November 7, 1991, St. Louis, MO
 12th Midwest Enzyme Conference, October 10, 1992, Chicago, IL
 University of Utah, December 3, 1992, Salt Lake City, UT
 Thirteenth Enzyme Mechanisms Conference, January 6, 1993, Key Largo, FL
 Dow Elanco/Purdue Colloquium, Purdue University, May 25, 1993, West Lafayette, IN
 Dupont Agricultural, June 11, 1993, Newark, DE
 CIBA Agricultural Biotechnology, May 3, 1994, Research Triangle, NC
 Searle Research and Development, Monsanto Co. October 11, 1994, St. Louis, MO
 University of Michigan, December 1, 1994, Ann Arbor, MI
 Indiana University School of Medicine, March 3, 1995, Indianapolis, IN.
 Gordon Research Conference, Enzymes, Coenzymes and Metabolic Pathways, July 17, 1995, Meridan, NH
 American Chemical Society annual meeting, August 1995, Chicago, IL.
 Wayne State University, November 8, 1995, Detroit, MI.
 Beltwide Cotton Conferences, 1996.
 Zeneca Agrochemicals, June 10, 1996, Bracknell, Berkshire, UK
 Seventeenth Enzyme Mechanism Conference, October 18, 1997, Chicago, IL
 Department of Chemistry, Indiana University, November 14, 1997, Bloomington, IN
 Department of Chemistry, Purdue University, February 20, 1998, West Lafayette, IN
 Department of Chemistry, Indiana University Purdue University, December 9, 1998, Indianapolis, IN
 Department Chemistry, Duke University, December 1999, Durham, NC
 American Chemical Society annual meeting, March 2000, San Francisco, CA
 University of Florida, December 3, 2000, Gainesville, FL
 Pharmacia-Upjohn Company, March 7, 2001, Kalamazoo, MI
 Department of Chemistry, Wittenberg University, March 20, 2001, Springfield, OH
 Pharmacia-Upjohn Company, June 1, 2001, Kalamazoo, MI
 Kosan Biosciences, Inc., July 13, 2001, Hayward, CA
 American Chemical Society annual meeting, August 30, 2001, Chicago, IL
 Department of Chemistry, University of South Florida, October 25, 2001, Tampa, FL
 Sigma Aldrich Company, November 16, 2001, St. Louis, MO
 Department of Chemistry, University of Notre Dame, November 30, 2001, Notre Dame, IN
 Screening Technologies Branch Developmental Therapeutics, National Cancer Institute, April 17, 2002, Frederick, MD
 St. Jude Children's Research Hospital, April 24, 2002, Memphis, TN
 American Chemical Society annual meeting, August 2002, Boston, MA
 Department of Medicinal Chemistry, University of Illinois Chicago, March 2003, Chicago, IL
 Department of Medicinal Chemistry, University of Arizona, March 2003, Tucson AZ
 Department of Biochemistry, Indiana University School of Medicine, April 2003, Indianapolis, IN
 American Chemical Society Annual Meeting, September 2003, New York, NY
 American Chemical Society Great Lakes Regional Meeting of the, October 2004, Peoria, IL.
 American Institute of Chemical Engineers, December 2004, Mumbai INDIA
 TATA Institute for Fundamental Research, December 2004, Mumbai INDIA
 Department of Molecular Biophysics, Indian Institute of Science, December 2004, Bangalore INDIA
 National Institutes of Health (NIDDK) Workshop on "Metabolomics Standards Workshop" August 2005, Bethesda, MD.
 PacificChem Symposium, December 2005, Honolulu, HA
 International Symposium on Technopreneurship in Academia & Industry, January 2006; New Delhi, INDIA
 Department of Medicinal Chemistry, University of Arizona, March 2006, Tucson, AZ
 Department of, Butler University, March 2006, Indianapolis, IN
 Program in Biological Chemistry, The University of Utah, March 2006, Salt Lake City, UT
 Pierce Biosciences, Inc, March 31, 2006, Milwaukee, WI

American Society of Biological Engineers, Santa Barbara, CA Sept 5, 2006
College of Pharmacy, University of Minnesota, Minneapolis, MN Oct 11, 2006.
Natural Products Affinity Group of San Diego, Salk Institute, La Jolla, CA Jan 19, 2007
Michael Smith Laboratories, University of British Columbia, Vancouver BC Feb 12, 2007.
Department of Medicinal Chemistry, University of Minnesota, MN March 6, 2007.
Department of Physiology and Biophysics, University of California Irvine, Irvine, CA June 7, 2007.
Millipore Corporate Technology, Billerica, MA July 17, 2007.
Drug Discovery Program, Moffitt Cancer Center and Research Institute, Tampa, FL August 28, 2007.
Department of Pharmacology, Case Western University, Cleveland, OH October 30, 2007.
American Chemical Society Midwest Meeting, Symposium on Natural Products as Leads and Tools for Drug Discovery,
Kansas City, MO November 9, 2007.
Korean Institute of Science and Technology, Purdue-Korea Symposium on Theranostic Approaches and Technology,
Seoul Korea June 2, 2008.
BP Azerbaijan, Consortium on Microbial Biodiversity of the Caucasus Region, Baku Azerbaijan, July 22, 2008.
Department of Chemistry and Biochemistry, University of Notre Dame, South Bend, IN, December 18, 2008.
Department of Chemistry and Biochemistry, University of Missouri, April 13, 2009.
Department of Medicinal Chemistry, University of Illinois Chicago, Chicago, IL, April 23, 2009.
2009 Asia Pacific Pharmaceutical Congress, Strategies and Solutions for Drug Research and Development in China, Fudan
University, Shanghai, China November 6, 2009.
Department of Medicinal Chemistry, Shanghai Institute of Materia Medica, Shanghai, China November 8, 2009.
2009 Drug Discovery Seminar, Strategies and Solutions for Pharmaceutical Research and Development, Biopolis
November 11, 2009, Singapore
CYTO 2010 International Society for Analytical Cytology Meeting, May 12, 2010 Seattle, WA
Workshop on Proteomics, Genomics & Systems Biology Tata Institute of Fundamental Research, November 8-10, 2010
Mumbai, INDIA
Lilly Screening Technology Group, Eli Lilly Laboratories, August 24, 2011, Indianapolis, IN.
Symposium in honor of C. Dale Poulter, University of Utah, Department of Chemistry, September 15, 2012
University of Cincinnati Department of Chemistry November 22, 2013
University of North Carolina Greensboro Department of Chemistry January 31, 2014
University of Iowa College of Pharmacy March 10, 2015
Harrison School of Pharmacy, Auburn University July 21, 2015
Indiana University School of Medicine, Department of Biochemistry, December 7, 2015
Wittenberg University Department of Chemistry April 18, 2017
The University of Kansas, Department of Medicinal Chemistry March 7, 2019
26th International Conference of International Academy of Physical Sciences on Advances In Chemistry & Chemical
Technology, Indian Institute of Technology BHU, December 18-20, 2020

GRADUATE MENTORSHIP

WuPo Mike Ma Ph.D. December 1992 (joint with Prof S. Byrn) "The synthesis of 9-benzylacridine and 9-Analogs and the Overproduction of Mutant Ribonuclease H and the Synthesis of a Ribonuclease H-octadeoxyribonucleotide Biconjugate as a Potential Anti-viral Agent"

Fogarty Postdoctoral Studies at National Institutes of Health, Robert Crouch

Current status: Chief R&D Officer, Prenetics, Hong Kong

Aulma Parker Ph. D. May 1995 (joint with Prof. J. Schwab) "Production and Purification of Imidazole Glycerol Phosphate Dehydratase from *E. coli* and *C. neoformans*. Characterization of the Kinetic and Metal Binding Properties."

Postdoctoral Studies, Leukemia Society Fellow at Yale University with Professor Joan Steitz.

1998-2014, Department Head, BioNumerik Pharmaceuticals, Inc. San Antonio, TX

Current Status: Senior Principal Medical Writer, Seagen

Susan Hamilton Ph. D. August 1995 "Characterization of an Enzymatic Amadori Rearrangement."

Postdoctoral Studies, Howard Hughes Fellow, the University of Texas Southwestern with Dr. David Corey.

Current Status: Chemistry Instructor, University of Incarnate Word, San Antonio, TX

John Battles M. S. November 1995 (joint with J. Schwab) "Defining the Role of Tyrosine-155 in β -Hydroxydecanoyl Thioester Dehydrase."

Current Status: Product Owner, L7 Informatics, Austin, TX

Steven Firestine Ph. D. December 1995 "Biochemical and Mechanistic Characterization of *Gallus Gallus* 5-Aminoimidazole Ribonucleotide Carboxylase"

Postdoctoral Studies, Damon Runyon Fellow, Penn State University with Professor Steve Benkovic

Current Status: Professor of Pharmaceutical Sciences, Wayne State University, Detroit, MI

Tom Klem Ph. D. April 1996 "*Escherichia coli* IGP Synthase: Subunit Communication in a Glutamine Amidotransferase"

Postdoctoral Studies at Cornell University, Dr. Carl Blatt

Current Status: Director Translational Biomarkers at Homology Medicines, Bedford, MA

Ina Lim Deras Ph. D. May 1996 "Histidine Biosynthesis: Preparation and Characterization of Intermediates and Analogs"

Postdoctoral studies, Johns Hopkins University with Professor Y. C. Lee

Current Status: Associate Principal Scientist, Illumina, San Diego, CA

Michael Deras Ph. D. May 1997 "Design and Synthesis of Structural and Mechanistic Probes of *Escherichia coli* Guanosine Monophosphate Synthetase".

Postdoctoral studies at University of Maryland with Professor Sarah Woodson

Current Status: Director Systems Integration, Illumina, San Diego, CA

Hasik Youn Ph. D. May 1997 "Probing Functional Divergence of 5-Aminoimidazole Ribonucleotide Carboxylases"

Current Status: Vice President, Director of Drug Discovery, LG Life Sciences, Seoul, Korea

Yuan Chen M. S. May 1997 "Expression and Characterization of the Yeast IGP Synthase"

Current Status: Senior Associate Scientist, Atara Biotherapeutics Thousand Oaks, CA

Shawn Misialek M. S. December 1996 "Characterization of AIR Carboxylases from *Cryptococcus neoformans*"

Current Status: Scientist III at Blade Therapeutics Inc., Redwood City, CA

Carolyn Obermeyer M.S. May 1999 “Mutational Analysis of Potential Metal Binding Residues in *N*¹-(5'-Phosphoribosyl)Adenosine-5'-Monophosphate Cyclohydrolase, A Histidine Biosynthetic Enzyme”

Current Status: unknown

Natasha Paul Ph.D. May 2000 (joint with Don Bergstrom) “Recognition of Azole Carboxamide Nucleobases by DNA Polymerases”

Postdoctoral studies at the Scripps Institute with Dr. Gerald Joyce

Current Status: Associate Director, Molecular Assemblies, Encinitas, CA

Travis Day Ph.D. May 2001 “The Investigation of the Histidine Biosynthetic Pathway for Drug Target Validation in the Pathogenic Yeast *Candida albicans*”

Current Status: Clinical Pharmacist, Eskenazi Health Services, IUPUI, Indianapolis, IN

Jordan Jensen M.S. August 2001 “Substrate Derivatives and Binding Order in Imidazole Glycerol Phosphate Synthase, A Histidine Biosynthetic Enzyme”

Professional education Masters of Business Administration, 2002. Ph.D. Ohio State University 2011

Current status: Product Development Scientist, Covance, Greenfield, IN

Nathalie Amendah Ahyi M.S. May 2004 “Characterization of Geldanamycin as Potential Antifungal for *Candida Albicans*”

Ph.D. 2009 from Indiana University Department of Microbiology & Immunology (with Hal Broxmeyer)

Current status: Senior Scientist, CRISPR Therapeutics, Cambridge MA

Rebecca Myers Ph.D. December 2004 “Imidazole Glycerol Phosphate Synthase: Structural and Kinetic Studies of a Triad Glutamine Amidotransferase”

Postdoctoral Fellow for Teaching and Research, School of Pharmacy, University of Washington.

Current status: Professor in the School of Pharmacy at the University of Charleston.

Olga Adelfinskya Ph.D. December 2004 (joint with Don Bergstrom) “Oxadiazole Carboxamide Nucleosides as Probes for DNA Polymerases”

Postdoctoral studies: Medicinal Chemistry Leuven, Belgium with Dr. Piet Herdewijn.

Current status: Senior Chemist, Singular Genomics, San Diego, CA

Vishal Nashine Ph.D. May 2006 “Azole Carboxamide Nucleobases: Probes of DNA Polymerase Specificity and Tools for Mutagenesis”

Postdoctoral studies: Postdoctoral Associate, Laboratory of Stephen Benkovic Penn State University.

Current status: Senior Director, Glaxo Smith Kline, New York

Nwanne Anadu Ph.D. August 2006 “Investigating the Mechanism of Anticancer Activity of the Natural Product Brefeldin A”

Current status: Director, Immuno-Oncology, Lung Cancer at Bristol-Myers Squibb, Princeton, NJ.

Justin Oliver Ph.D. December 2006 “Chemical and Structural Dynamics of Guanosine Monophosphate Synthetase”

Current status: Chemist, FDA, Rockville, MD.

Athena Zhou M.S. August 2008 (joint with Alan Friedman) “Post-translational modifications in Protein Isoaspartyl Methyltransferase”

JD from University of California Berkeley, 2011

Current status: Business and Legal Counsel for 1) Sunshine Consumer Goods, 2) Parkinson's Institute and Clinical Center San Francisco, CA

Fiona Thomas Ph.D. August 2013 "Development and Application of a Yeast Screening Platform to Investigate Heat Shock Networks"

Current status: Field Application Scientist, Beckman Coulter Inc, Brea, CA

Anthony Pedley Ph.D. August 2013 "Evaluation of Proliferating Cell Nuclear Antigen as a Therapeutic Target in DNA Repair" Postdoctoral

Current status: Assistant Professor of Research at Penn State University

Matt Bartolowits Ph.D. December 2015 "Discovery of Molecules that Modulate Protein-Protein Interactions in the Context of Human Proliferating Cell Nuclear Antigen-associated Processes in DNA Replication and Damage Repair"

Current status: Co-Founder and COO of Food4Thought, LLC Boston, MA

Dino Petrov Ph.D. August 2018 "Discovery of Novel Inhibitors for the Human Papillomavirus E6 Protein"

Current status: Research Scientist II at Charles River, Ashland OH

Aaron Lindstrom Ph.D. December 2018 "Synthesis and Identification of Novel Arylnaphthalene V-ATPase Inhibitors as Selective Anti-Filoviral Agents"

Postdoctoral Associate Univ. California Davis College of Medicine

Current status: Medicinal Chemist, Arbutus Biosciences, Philadelphia, PA

Jonathon Gast Ph.D. December 2020 "

Current status: Senior Application Scientist at Nanome, Inc. Chicago, IL

Amr Elkabbany Ph.D. candidate

Current status: good standing in residence

Laura Sanford Ph.D. candidate

Current status: good standing in residence

POSTDOCTORAL ASSOCIATES

Dr. Xiao-Ya Chen Ph. D. Botany (Universität Tübingen) joint with Prof. P. Heinstejn 9/92 - 9/94

Current position: Professor and Former Director, Shanghai Institute of Sciences, Chinese Academy of Science

Dr. Jayu Wu, Ph. D. Organic Chemistry (University of South Florida) 6/1/95 - 11/9/96

Current position: Senior Software Architect, Solers, Washington, DC

Dr. Galina M. Yakovleva Ph. D. Chemistry (Moscow State University) 3/1/96 - 8/15/98

JD, John Marshall School of Law, Chicago, IL, 2000

Current position: Patent Attorney, San Diego, CA

Dr. Geoffrey Hoops, Ph. D. Medicinal Chemistry (University of Michigan) 8/1/95 - 8/13/99

Current position: Professor, Butler University, Indianapolis, IN

Dr. Robert D'Ordine, Ph. D. Bioorganic Chemistry (Brown University) 9/1/95 - 6/11/99

Current position: Principal Scientist, Associates of Cape Cod, Boston, MA

Dr. Cynthia Shafer Ph. D. Organic Chemistry (University of California, Davis) 4/1/98 - 8/5/99

Current position: Chief of Staff, Clinical Development at Arcus Biosciences, San Francisco, CA

Dr. Sridar Chittur Ph. D. Medicinal Chemistry (West Virginia University) 1/1/97-3/1/02

Current position: Associate Research Professor Biomedical Sciences and Director of Microarray and DNA Sequencing Core, Center for Functional Genomics, State University of NY at Albany, NY

V. J. Davisson

Dr. Weidong Wu Ph.D. Medicinal Chemistry (Shanghai Institute Material Medica) 9/11/00-8/1/03
Current position: Director of Chemistry DNA Script, FRANCE

Dr. Ravindra Gudihal Ph.D. Molecular Biophysics (Indian Institute of Science) 3/15/05-5/15/07
Current status: Workflow Solution Team Manager, Agilent Technologies, Singapore

Dr. Shirshendu Deb Ph.D. Chemistry (University of Chicago) 9/1/03-7/18/07
Current status: Senior Chemist, FDA, Rockville, MD

Dr. Roman Rozhkov Ph.D. Chemistry (Iowa State University) 9/15/04-8/15/06
Current status: Technology and Innovation Leader, Thermo Fisher Scientific San Francisco, CA.

Dr. Giselle Knudsen Ph.D. Chemical Biology (University California San Francisco) 8/15/04-7/15/08
Current status: Director of Technology at Alaunus Biosciences, San Francisco CA

Dr. Zhidong Xu Ph.D. Medicinal Chemistry (Peking University) 7/15/06-7/15/08
Current status: Business development in China

Dr. Bingnan Han Ph.D. Natural Products Chemistry (Oregon State University) 10/1/07-5/30/08
Current status: Professor, Zhejiang Sci-Tech University, Hangzhou, CHINA

Dr. Meiguo Xin Ph. D. Medicinal Chemistry (University of Florida) 5/15/08-9/15/2010
Current Status: Associate Professor at Foshan University, Guangdong, China

Dr. Quigshou Chen Ph.D. Organic Chemistry (Shanghai Institute Organic Chemistry) 7/1/10-8/30/2012
Current Status: Team Leader Chemistry, Avanti Polar Lipids Pharmaceuticals, Birmingham, AL

Dr. Chinnarajesh Ummadisetti Ph.D. Organic Chemistry (University of Dehli) 5/6/2020-8/14/2021
Current Status: Senior Scientist Chemistry, Amplified Sciences, Inc, West Lafayette, IN

Dr. Vallabh Suresh, Ph.D. Organic Chemistry (Purdue University) 7/6/2020-present

RESEARCH SCIENTISTS AND VISITING SCHOLARS

Dr. Andy Liwang Assistant Research Scientist 1997-1999
Current status: Associate Professor, University of California Merced

Professor Gotam Jarori Visiting Professor 2001-2006
Professor of Biological Sciences (retired), the TATA Institute for Fundamental Research, Mumbai INDIA

Dr. Meena Narsimhan Research Scientist 4/2003-9/1/05
Current Status: Research Scientist at Novalytics, West Lafayette, IN

Dr. Bartek Rawja Research Scientist in Imaging and Informatics 1/1/08-10/1/2010
Current status: Research Associate Professor, Bindley Bioscience Center at Purdue Discovery Park

Dr. Andrew Bieberich Research Scientist 10/1/06-7/15/2013
Current status: Research Scientist at Aseda Sciences, West Lafayette, IN

Dr. Maria Tsiper Research Scientist in Cell Imaging and Technology 10/1/08-3/2012
Current status: VP Strategic Partnerships BostonGene

V. J. Davisson
3/2009-11/2011

Dr. Guillermo Morales Visiting Scientist in Drug Design
Current status: CEO of Strategynx, Tucson, AZ

Dr. Bingnan Han Visiting Associate Professor in Metabolomics/Proteomics 9/15/2010-7/15/2012
Current status: Professor, Department of Development Technology of Marine Resources, Zhejiang Sci-Tech University, Hangzhou CHINA

Prof. N. M. Ragahendra Visiting Associate Professor 9/15/2012-9/14/2013
Current status: Professor and Principal College of Pharmaceutical Chemistry, Dayananda Sagar University, Bengaluru, Karnataka, INDIA

Sandra Carolina Ordoñez Rubiano Visiting Undergraduate Internship, Universidad Nacional de Colombia, Bogata COLUMBIA 1/1/2016-6/30/2016
Current Status: PhD program at Purdue University

Andres Felipe Salazar Chaparro Visiting Undergraduate Internship, Universidad Nacional de Colombia, Bogata COLUMBIA 7/1/2016-12/31/2016
Current status: PhD program at Purdue University, Postdoctoral Associate Dana Farber Cancer Institute

Hao Yan Visiting Undergraduate Internship, Shengyang Pharmaceutical University, Shenyang CHINA
1/1/2017-5/1/2017 Current status: PhD program in China

Digambar Waiker, MS Visiting Scholar 2/1/2019-4/30/2020
PhD, Indian Institute of Technology BHU, Varanasi INDIA

Karen Cardenas-Martinez, Visiting Scholar, 11/29/2021-12/2/2022
Ph.D. candidate, Universidad Nacional de Colombia, Bogata COLUMBIA

Bhagwati Bhardwaj, Visiting Scholar, 2/1/2022-1/15/2023
Ph.D. candidate, Indian Institute of Technology BHU, Varanasi INDIA

Sara Maria Osorio Quinones, Visiting Undergraduate Internship, Universidad ICESI, Cali COLUMBIA
2/1/2023-7/31/2023

STAFF

Mr. Ray Fatig, MS, Senior Technical Associate 11/2004-3/2015
Current status: Senior Associate Scientist at Aseda Science, West Lafayette, IN

Charlie Zhang, PhD, Senior Research Associate 8/2019-present

UNDERGRADUATE STUDENTS

The laboratory continuously engages undergraduate research students that work directly worked under my guidance or in collaboration with senior graduate students or postdoctoral associates. A few of these individuals and their current status are noted below:

Landon Moore B. S. 1990, Ph.D. 1997 Purdue (Biochemistry)
Senior Research Scientist University of Oklahoma Health Sciences, Oklahoma City, OK

Sing Wing Poon B. S., 1993, M.D., 1998 New York University School of Medicine
Surgeon Baltimore, MD.

Wei Ming Su B. S. 1993, M. S. 1996, Northwestern University MS Kellogg School of Management, Chicago, IL
President and Founder Caspian Royal Fish and Caviar, LLC Chicago, IL

Julie Wilsbacher B. S. 1995, Ph.D. UT Southwestern, 2000
Senior Principal Scientist Oncology Discovery, AbbVie, Round Lake, IL

Brian Overholser Pharm.D. 2001 Purdue University
Current status: Professor of Pharmacy Practice, Purdue University

Ryan Buhr B.S. Pharmaceutical Sciences 1999, MD Indiana School of Medicine, 2003
Current status: Anesthesiology Ft Wayne, IN.

Mary Ullman BS Pharmaceutical Sci & Pharm.D. Purdue, 2006. AFPE Gateway Scholarship; 2003; Pfizer Scholarship
2004; Fellow in Infectious Diseases, University of Minnesota
Current status: Clinical Pharmacist and Preceptor Infectious Diseases, Regions Hospital St. Paul, MN

Katharine Harris B.S. Biological Sciences 2010, Ph.D. Univ. of Pittsburgh, Microbiology & Immunology, 2015,
Postdoctoral Fellow, University of Chicago, co-Founder AVnovum Therapeutics
Current Status: Assistant Professor of Biology, Franklin College, Franklin, IN

Kyle Harvey Pharm.D., 2016 and Ph.D. Purdue University, 2022
Current status: Scientist at MED Institute, West Lafayette, IN

Rani Bendersky PharmD 2020
Current status: Senior Associate Commercial Strategy, Skysis (A Member of Fishawack Health)

Andrew Thieme BS Pharmaceutical Sciences 2017, Ph.D. University of North Carolina, 2022
Current status: Cheminformatician, Mindstate Design Labs, St Petersburg, FL

Stephanie Grebinoski BS Pharmaceutical Sciences 2017, Ph.D. University of Pittsburgh, 2022
Current status: Scientist Seismic Therapeutics, Cambridge, MA

Lauren Orr BS Pharmaceutical Sciences and Chemistry 2020
Current status: Ph.D. program Department of Chemistry, University of California Berkeley

OTHER STUDENTS IN SECONDARY ADVISORY ROLE

Professor Don Bergstrom (Medicinal Chemistry & Molecular Pharmacology) joint effort to develop artificial DNA base technology

Sherine Abd-El-Mawla, Ph.D. November 2007, Current status: CEO Akanocure Pharmaceuticals

Professor Zadia A. Luthey-Schulten (University of Illinois Champaign Urbana), joint effort
Rommie Amaro, September, 2005 "Investigating the Structure and Function of IGP Synthase", Postdoctoral studies
UCSD with Andrew McCammon 2005-2008, Current status: Professor University California San Diego.

Professor Janet Smith (Biological Sciences) joint projects involving the determination of protein structures.
John Tesmer, Ph. D., December 1995, "The Crystal Structure of a Paradigmatic Protein: GMP Synthetase from
Escherichia coli at 2.2 Å Resolution". Current Status: Professor Purdue University
Sangita Sinha, Ph.D. December 2000, "Structural analysis of Proteins Regulating Transcription of Purine Biosynthesis
genes in *Bacillus subtilis*" Current status: Associate Professor North Dakota State University

Former Professor John Schwab in collaborations jointly mentored two graduate students before his departure from
Purdue:

Robert Annand, Ph. D., May 1992, "Studies On the Fate of S-(3-decynoyl)-N-acetylcysteamine in *Escherichia coli*".
NIH Postdoctoral Fellow at the University of Washington with Professor Michael Gelb;
Current status: Technical Specialist, ReproCell LLC, Boston, MA.

V. J. Davisson

Jeffrey Moore, Ph. D., May 1993 "Synthesis and Applications of Stereospecifically Labeled Compounds: Stereochemical Course of the Imidazole Glycerol Phosphate Dehydratase Reaction". NIH Postdoctoral Fellow at the University of Utah with Professor C. D. Poulter.
Current status: Abbott, Abbott Park, IL.

TEACHING DUTIES 1995-PRESENT *Signifies course coordinator in case of team taught classes

<u>Course Name</u>	<u>Subject</u>	<u>Duties</u>
MCMP 204*	Organic Chemistry	Fall 1995-98
MCMP 422*	Immunology and Chemotherapy	Spring 1998
MCMP 442*	Chemotherapy of Infectious and Neoplastic Diseases	Spring 1999-06
MCMP 598	Intermediate Organic Chemistry	Spring 1996
MCMP 490	Organic Chemistry Review	Fall 1997-00
MCMP 441	Pharmacodynamics, Endocrine and Paracrine Pharmacology	Fall 2008-09, 11
MCMP 514	Biophysical Methods Principles and Practice	Spring 2009
MCMP 650	Advanced Topics Natural Products	Spring 1995, 1997
MCMP 690*	Modern Techniques in NMR Spectroscopy	Summer 1990-98
MCMP 690G	Molecular Targets: Cancer	Spring 2006-11, 13
MCMP 690	Systems Biology in Drug Discovery and Pharmacology	Spring 2010, 13
PHRM 301*	Integrated Lab "Introduction to Biochemical Kinetics"	Fall 2000-05, 11, 12
MCMP 514	Pharmacological Analysis	Spring 2013
PHRM 460*	Drug Discovery and Development, I	Fall 2013-23
MCMP 570	Chemical Actions in Biological Systems	Fall 1997-03, 07-22

ADVISING, COUNSELING AND RECRUITING STUDENTS

Pharmacy student academic advisor for 28 students, 1993-1998

School of Pharmacy Advisory Group to Minority Cultural Programs, 1996-1999

School of Pharmacy admission committee, 2000-2001

Non-chair role Graduate Advisory Committees 33 Ph. D. student committees that have completed degrees

Currently serving on 11 Ph.D. student committees

COURSE AND CURRICULUM DEVELOPMENT SERVICE TO COLLEGE:**Chair, Department Professional Curriculum Committee 1997-2001**

MCMP 407, 408, 441, 442

Lead the reorganization of basic sciences course series to combine principles of medicinal chemistry and pharmacology of therapeutics for professional Pharm. D. and B.S. degree curricula.

PHRM 301, 302, 401, 402

Instrumental in reorganizing previous courses into new integrated laboratory courses for Pharm. D. students

Chair Department Graduate Advisory Committee 2000-2004

MCMP 614 (Medicinal Analytical Chemistry)

Course reorganization to become MCMP 514

MCMP/CHM 616 (NMR Methods and Applications) formally MCMP 690

Developed, coordinated, and taught new course in NMR spectroscopy for graduate students.

Chair, Curriculum and Program Development Committee Bachelor in Pharmaceutical Sciences (1998-2002).

Designed, staffed, and implemented a new science-based four-year degree program in pharmaceutical sciences and a summer internship program

Chair of Bachelor of Science Pharmaceutical Sciences Oversight Committee (1996-2001; 2016-present)

Currently developing the program to meet the opportunities for drug discovery and development and related career paths.

ADMINISTRATIVE DUTIES AND PROFESSIONAL SERVICE**Department of Medicinal Chemistry and Molecular Pharmacology**

Facilities and Instrumentation Committee (Chair), 1995-2003

Departmental NMR Committee (Chair), 1993-1997

Interdepartmental Committee for NMR Facilities, 1997-2001

Undergraduate Curriculum Committee (Chair), 1995-1997
Associate Department Head, 1998-2003
Executive Committee 1997-2006
Ad Hoc Committee for Curriculum Revision, 1998
Graduate Advisory Committee (Chair), 2000-2004
Graduate Assessment, 2000-2002
MCMP Curriculum Committee (Chair) 1999-2003, 2023
Purdue Cancer Center Liaison Committee (2000-2008)
MCMP Graduate Advisory Committee (2009-2021)
Faculty search committees (8 total)
Mentor to Junior Faculty (6)

Chair of Faculty Search Committees (1998-2001, 2005-2006, 2009-2012)

Played several instrumental roles in recruiting junior faculty as committee chairs; over half the faculty has been hired from 1998-2015.

2011-2012: Search Committee to recruit a named Chair in Cancer Therapeutics.

2011-2012: Search Committee chair to recruit junior faculty in Drug Discovery

2014-2017 Search Committee to recruit multiple junior and senior faculty positions in Medicinal Chemistry

Chair of School Committee on Global Initiatives (2009)

Lead a task group to establish an institutional learning system to evaluate, prioritize and strategically align scholarly activity and funding with international outreach, sponsored research opportunities, and technology commercialization.

College of Pharmacy

Undergraduate Academic Advisor, 1991-1999

Ad Hoc Committee on Departmental Reorganization, 1994

Committee for Professional Curricula and Improvement of Instruction, 1995-1998

Oversight Committee for Bachelor of Science in Pharmaceutical Sciences (Chair, 1997-2001, 2010-present)

Scheduling Committee, 2001-2003

Faculty Liason to BIOL 221 (Microbiology), 1999-present

Graduate Programs & Policies Committee (Chair, 2000-2003, 2004-present standing member)

Member of Search Committee for Endowed Chair in Cancer Therapeutics (2007-2011)

Representative to Purdue University Undergraduate Curriculum Committee (2016-2018)

Representative to the Work Force of the Future Task Group sponsored by Global Pharmaceutical Manufacturers (2018-present)

Biochemistry & Molecular Biology Graduate Program

Advisory Committee 1993-1998

Executive Committee 1996

Purdue University Life Science Graduate Programs

Member of the Chemical Biology Training Group 2004-present

Member of the Structural Biology Training Group 2004-present

Purdue University Graduate School

Member, Special Task Group to Enable Interdisciplinary Graduate Programs 2002-2003

Chair, Interdepartmental Task Force for Computational Life Sciences 2003-2004

Member Purdue Graduate Council representing College of Pharmacy 2016-2018

Purdue Discovery Park

Member of the founding Directors and Strategic Planning Team, 2001-2005

Member of the Executive Team Bindley Bioscience Center, 2002-present

Member of the Purdue Cancer Center Director Search Committee, 2005-2007

Member of the Purdue Bindley Bioscience Center Director Search Committee, 2005-2006

Member of the Strategic Planning Committee for the Burton D. Morgan Center for Entrepreneurship 2006

Purdue Cancer Center

Founding Director of the Molecular Discovery and Evaluation Shared Resource, 2008-2012.

Outside

Review panel for Department of Medicinal Chemistry, University of Utah College of Pharmacy 2006

Review panel for Graduate Programs, University of Florida College of Pharmacy 2015

BREIF HIGHLIGHTS OF MANAGERIAL LEADERSHIP ACCOMPLISHMENTS**Departmental**

- Managerial, administrative, and scientific oversight for the NMR facility (1992-1997), including professional staff, graduate teaching assistants
- Designed and implemented the Interdepartmental NMR Facilities (1997-2000)
- Designed, coordinated, and implemented graduate course in practical NMR spectroscopy (1992-1997)
- Member of the Executive Committee 1996-2010

Associate Head, Chair of Graduate Advisory Committee, Chair of Professional Curriculum Committee

- Eight new faculty hires and their laboratory set-ups were established
- Assisted in the development of model for faculty teaching and service loads
- Restructured graduate program
- Established multi-user research facilities and expanded capacity
- Developed a four course series that integrates medicinal chemistry and pharmacology
- Developed and implemented four new integrated laboratory courses for Pharm. D. curriculum
- Assisted in the development of NIH funding model for laboratory renovations involving greater than 25,000 sq ft
- Restructured graduate course offerings and course content for two classes
- Managed and restructured graduate teaching assistantships policies and procedures

College of Pharmacy (1996-2001)

- Primary role in Task Group for reorganization of the basic sciences departments to establish current structure
- Provided leadership on Professional Curriculum Committee for development and implementation of the entry level Pharm D. curriculum
- Spearheaded an initiative to design, implement, and develop a 4-year science based curriculum and summer internship program that has been highly successful

Founding Co-Director Discovery Park (10/2001 to 6/2005) (see separate report on the Bindley Bioscience Center)

- Administrative leadership to establish Discovery Park mission and vision;
- Provided overall evaluation of life science research capability of Purdue West Lafayette campus;
- Oversight for planning and construction of the 55,000 sq ft Bindley Bioscience Center on \$15 M budget;
- Established faculty leadership and management model for organization of the Bindley Bioscience Center;
- Designed, organized and established four large-scale interdisciplinary research cores for both fundamental technology development and applications in the life sciences with a total investment of \$7.5 M.
 - Oversight on the planning and implementation of four new multi-user research facilities on Purdue campus
 - Recruited and hired 5 administrative staff and 15 scientific professional and graduate staff
 - Developing business models for administration of centralized research facilities
- Submitted over \$300 M in interdisciplinary grants over a 3.5 y period involving over 100 faculty and students on campus; the effort yielded over \$35 M in new sponsored research grants.
- Established a corporate partnership model for joint research and early stage technology development
- Initiated the organization of interdisciplinary graduate program in Computational Life Sciences
- Lead a Task Group to review and make recommendations on early stage commercialization process
- Served on Task Group to recommend guidelines for institutional conflict of interest

- Scientific and Business advisory role to regional start up companies
- Leadership and regional coordination of the Indiana Proteomics Initiative (2001-2003)
- Delivered over 70 presentations in 3 years to develop contacts and partners for Discovery Park
- Established new research collaborations with Lilly Laboratories and Mayo Clinic