**Dana Ferraris, PhD, MBA**

Department of Chemistry

McDaniel College

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**Education**

**Johns Hopkins University, Carey Business School** **2004-2009**

*Masters of Business Administration*

**Johns Hopkins University**  **1994-2000**

*Ph. D. in Organic Chemistry, Advisor: Dr. Thomas Lectka*

**Lafayette College**  **1990-1994**

*Bachelor of Arts in Biochemistry*

**Professional Experience**

**McDaniel College**

*Visiting Assistant Professor of Chemistry* **September 2015- December 2016**

*Associate Professor of Chemistry* **December 2016-January 2023**

*Chair, Department of Chemistry* **November 2017-present**

*Professor of Chemistry* **January 2023-present**

* Mentored over 40 undergraduate students towards completion of four medicinal chemistry projects: *1)* *Design and synthesis of Inhibitors of PARP10 and PARP14 for Cancer therapy; 2) Design, synthesis, and anti-neoplastic evaluation of dimeric amino-naphthoquinones against acute myeloid leukemia (AML); 3) Design, synthesis and evaluation of inhibitors of the SARS-CoV-2 nsp3 macrodomain; 4) Design, synthesis and evaluation of inhibitors of the SARS-CoV-2 main protease.*
	+ Established research collaborations with eleven groups around the globe including University of Kansas (Dr. Anthony Fehr); University of Oulu (Dr. Lari Lehtiö); University of Maryland Cancer Center (Dr. Ashkan Emadi and Dr. Rena Lapidus), Karolinska Institutet in Sweden (Dr. Herwig Schüler); JHU School of Public Health (Dr. Anthony Leung); Centre National de la Recherche scientifique, France (Dr. Katia Zanier), University of Turku Institute of Biomedicine, Finland (Dr. Arto Pulliainen), Harvard Medical School (Dr. David Sinclair), University of Manchester, England (Dr. Adam Hurlstone), University of Debrecen, Hungary (Dr. Laszlo Virag), Pennsylvania State University (Dr. Claudia Nicolae)
* Designed a Health Science Major and Biomedical Science Major and obtained approval from Academic Affairs, Board of Trustees and Maryland Higher Education Commission
* Initiated the creation of a STEM learning center for tutoring that serves the growing numbers of students who are taking STEM courses at the college by helping to improve general study habits and quantitative reasoning skills
* Prepared lecture materials, homework assignments and exams for Organic Chemistry 1 & 2, Organic Chemistry Laboratory 1 & 2, Medicinal Chemistry, Chemical Literature, Senior Seminar and Independent Research
* Incorporated online web learning WILEYPLUS for practice problems, skill building and homework assignments and exams
* Utilized and facilitated group-oriented problem-solving sessions during class
* Designed organic chemistry laboratory experiments to have embedded research project consisting of multi-step synthesis of biologically active molecules

**Stevenson University -** *Visiting Assistant Professor of Chemistry*  **2014-2015**

* Prepared lecture materials, homework assignments and exams for General Chemistry, Organic Chemistry, Organic Chemistry Laboratory and Independent Research (CHEM 365)
* Utilized online web learning by Cengage Learning Solutions and WILEYPLUS for practice problems, skill building and homework assignments
* Utilized and facilitated group-oriented problem solving sessions
* Demonstrated and instructed students on the classical techniques necessary for an organic chemistry laboratory, namely reaction set-up, reaction workup, purification, and characterization of organic compounds
* Mentored two undergraduate students towards completion of a medicinal chemistry project: *Design and synthesis of Inhibitors for mono-ADP-ribosyltransferases*

**Johns Hopkins University Brain Science Institute** **2009-2014**

**Drug Discovery Program**

*Principal Scientist*

* **Managing Collaborations** with pharmaceutical companies, academic labs and contract service providers:
	+ Reviewed internal grants to fund JHU academic labs with the goal of translating exploratory research into validated drug discovery projects
	+ Evaluated over 60 projects at JHU and initiated collaborations with 6 academic groups for translational research
	+ Worked with a team of scientists and business development personnel to establish a high throughput screening (HTS) collaboration between JHU and Eisai Pharmaceuticals
	+ Regularly interact with Eisai to advance and validate targets for HTS
	+ Crafted research budget and plan to obtain funding from corporate sources to advance a drug discovery project from validation through lead optimization
	+ Managed interactions with contract research organizations to obtain over 20 probe compounds to advance exploratory projects from JHU academic labs
* **Leading Translational Drug Discovery Research Teams**:
	+ Managed medicinal chemistry teams to design and synthesize inhibitors from lead optimization through preclinical characterization for several drug discovery projects
	+ Drug discovery projects include: protein-protein interactions (Glutaminase), metalloproteases (GCPII), Kinases (DLK), oxidases (DAAO) and GPCRs (SNSR4)
	+ Regularly interacted across disciplines with biologists, computational chemists, pharmacologists, ADME experts, patent attorneys and business development
* **Teaching Drug Discovery**
	+ Presented graduate-level drug discovery lectures for multiple courses: “Case Studies in Drug Discovery”, “Introduction to Drug Discovery” and “Neurotherapeutics”

**Eisai Pharmaceuticals 2008-2009**

*Principal Scientist*

* **Managed relationships with Eisai process development group** and with contract research organizations to optimize process route to FDA approved drug MGI-25208 *(ASTX727, Cedazuridine*)
* **Assembled transition packages** for integration of cytidine deaminase and PARP programs into Eisai’s R&D pipeline in Japan and US

**MGI Pharma 2004-2007**

*Senior Scientist/Principal Scientist*

* **Analyzed new product opportunities** by interacting with an interdisciplinary team of scientists and commercial professionals in the acquisition of assets from US and European academic and corporate sources to support sustained growth of the MGI R&D pipeline; completed one acquisition (AKR-501)
* **Managed medicinal chemistry team** from lead optimization through pre-clinical development for rare disease: ***Co-discovered the FDA approved cytidine deaminase inhibitor (MGI-25208, ASTX727, Cedazuridine)* as a co-administered therapy for myelodysplastic syndrome**
* **Assisted development teams** in assembling the IND for PARP-1 inhibitor MGI-21016 (E7016, oncology, Phase 3)

**Guilford Pharmaceuticals 1999-2004**

*Scientist/Senior Scientist*

* **Established and managed medicinal chemistry teams** for several drug discovery projects including PARP-1, DPP-IV, Glutaminase and D-Amino Acid Oxidase
* **Communicated project data across disciplines** with biologists, biochemists, ADME specialists and patent attorneys
* **Wrote research plans** for two funded SBIR grants

**Awards and Honors**

* Career Impact Award, Johns Hopkins University, **2021**
* George L. Braude Award for Undergraduate research, American Chemical Society, **2021**
* John Desmond Kopp Endowed Chair, **2020-2024**
* Ira G. Zepp Teaching Enhancement Grant, **2019**
	+ Award presented and $10,000 in funding given for proposal of the design of a STEM learning center
* Charles A. Boehlke Jr. Engaged Faculty Fellows Award, **2018-2021**
	+ Award presented to five faculty members who have demonstrated exceptional mentoring
* Faculty Scholarly Publications Award, **2017, 2021**
* Nora Roberts Award for Community Outreach, **2016-2017**
	+ Established a High School Science Outreach Program
* Ernest M. Marks Award for excellence in chemical research, Johns Hopkins University, **1998**
* William Hart Award for excellence in undergraduate chemistry research, Lafayette College, **1994**
* Aaron O. Hoff Leadership Award, Lafayette College, **1994**
* Presidents Cup for outstanding community service and philanthropy, Lafayette College, **1993**

**Professional Affiliations**

* **American Chemical Society**
	+ *Chair,*Maryland Section of ACS **2019-2020**

Organize regular events and programming for the local section, responsible for communication and dissemination of information, responsible for keeping a balanced budget of ~$50K per year, reporting activities to the national ACS

* + *Councilor, Maryland section* **2011-2020**
		- Elected official of the American Chemical Society, representative of the local section, responsible for voting on issues important to the ACS, primary liaison responsible for dissemination of information and services from the national offices to the local section
	+ *Member, Committee on Economic and Professional Affairs (CEPA)* **2012-2018**
		- Responsible for managing national career events, hiring career counselors, crafting salary surveys, monitoring and improving career services and researching current macroeconomic trends for employment of chemists
	+ *Member, Budget and Finance Committee* **2019-present**
		- Responsible for receiving and reviewing requests for funding of new and unbudgeted items, recommending approval or disapproval of the requests, and suggesting and identifying sources of funds if the request is to be approved; responsible for recommending to the Board of Directors and Council, as appropriate, an order of priorities, including termination of programs, based upon determination of costs and effectiveness
	+ *Remsen Award Chairman* **2010-present**
		- Responsible for soliciting nominations and managing the committee that selects the recipient of the Remsen award, the most prestigious chemistry award for the state of Maryland
	+ *Member* **1994-present**

**Publications**

1. “Design, Synthesis and Evaluation of Inhibitors of the SARS-CoV-2 nsp3 macrodomain” Sherrill, L. M.; Joya, E. E.; Walker, A.; Roy, A.; Alhammad, Y. M.; Atobatele, M.; Wazir, S.; Abbas, G.; Keane, P.; Zhuo, J.; Leung, A. K. L.; Johnson, D. K.; Lehtiö, L.; Fehr. A.; **Ferraris, D.** *Bioorg. Med. Chem.* **2022***, 67,* 116788*.*
2. “Discovery of compounds that inhibit SARS-CoV-2 Mac-1-ADP-ribose binding by high-throughput screening” Roy, A.; Alhammad, Y. M.; McDonald, P.; Johnson, D. K.; Zhou, J.; Wazir, S.; **Ferraris, D.**; Lehtiö, L.; Leung, A. K. L.; Fehr. A. *Antiviral Res.* **2022**, *203*, 105344.
3. “Pre-clinical activity of amino-alcohol dimeric naphthoquinones as potential therapeutics for acute myeloid leukemia” **Ferraris, D.**; Lapidus, R.; Truong, P., Bollino, D.; Carter-Cooper, B.; Lee, M.; Chang, E.; LaRossa-Garcia, M.; Dash, S.; Gartenhaus, R.; Choi, E.-Y.; Kipe, O.; Lam, V.; Mason, K.; Palmer, R.; Williams, E.; Ambulos, N.; Kamangar, F.; Zhang, Y.; Kapadia, B.; Jing, Y.; Emadi, A. *Anticancer Agents Med. Chem.* **2022**,*22*, 239-253.
4. “Recent development in the discovery of PARP inhibitors as anticancer agents: a patent update (2016-2020)” Velagapudi, U. K.; Pathak, S. K.; **Ferraris, D. V.**; Talele, T. T. *Expert Opin. Ther. Pat.* **2021**, *31*, 609-623.
5. “Integrating DNA-encoded chemical libraries with virtual combinatorial library screening: Optimizing a PARP10 inhibitor” Lemke, M.; Ravenscroft, H.; Rueb, N.; Kireev, D.; **Ferraris, D**.; Franzini, R. *Bioorg.* *Med. Chem. Lett.* **2020**, *30*, 127464.
6. “Analysis of the Mechanisms of Action of Naphthoquinone-Based Anti-Acute Myeloid Leukemia Chemotherapeutics” Lee, M. H.; Lapidus, R. G.; **Ferraris, D.**; Emadi, A. *Molecules*, **2019**, *24*, 3121-3140.
7. “The coronavirus macrodomain is required to prevent PARP-mediated inhibition of virus replication and enhancement of IFN expression” Grunewald, M.; Chen, Y.; Kuny, C.; Maejima, T.; Lease, R.; **Ferraris, D**.; Aikawa, M.; Sullivan, C.; Perlman, S.; Fehr, A. **2019,** *PLOS Pathogens*, **2019**, 15(5), e1007756.
8. “Structural and computational basis for potent inhibition of glutamate carboxypeptidase II by carbamate-based inhibitors” Barinka, C.; Novakova, Z.; Hin, N.; Bim, D.; **Ferraris, D.**; Duvall, B.; Kabarriti, G.; Tsukamoto, R.; Budesinsky, M.; Motlova, L.; Rojas, C.; Slusher, B.; Rokob, T.A.; Rulisek, L.; Tsukamoto, T. *Bioorg. Med. Chem.* **2019**, *27*, 255-264.
9. “Design, synthesis and evaluation of potent and selective inhibitors of mono-(ADP-ribosyl)transferases PARP10 and PARP14” Holechek, J.; Lease, R.; Thorsell, A.-G.; Karlberg, T.; McCadden, C.; Grant, R.; Callahan, E.; Schuler, H.; **Ferraris, D.** *Bioorg. Med. Chem. Lett.* **2018**, *28*, 2050-2054.
10. “Design and Synthesis of Potent Inhibitors of the mono-(ADP-ribosyl)transferase, PARP14” Upton, K.; Meyers, M.; Thorsell, A.-G.; Karlberg, T.; Holechek, J.; Lease, R.; Schey, G.; Wolf, E.; Lucente, A.; Schüler, H.; **Ferraris, D.** *Bioorg. Med. Chem. Lett.,* **2017,** *27,* 2907-2911*.*
11. “Synthesis, Characterization and Anti-neoplastic Activity of Bis-aziridine Dimeric Naphthoquinone – a Novel Class of Compounds with Potent Activity Against Acute Myeloid Leukemia Cells” Carter-Cooper, B. A.; Fletcher, S.; **Ferraris, D.**; Choi, E. Y.; Kronfli, D.; Dash, S.; Truong, P.; Sausville, E. A.; Lapidus, R. G.; Emadi, A. *Bioorg. Med. Chem. Lett.* **2017**, *27*, 6-10.
12. “Unprecedented Binding Mode of Hydroxamate-Based Inhibitors of Glutamate Carboxypeptidase II: Structural Characterization and Biological Activity” Novakova, Z.; Wozniak, K.; Jancarik, A.; Rais, R.; Wu, Y.; Pavlicik, J.; **Ferraris, D**.; Havlinova, B.; Ptacek, J.; Vavra, J.; Hin, N.; Rojas, C.; Majer, P.; Slusher, B.; Tsukamoto, T.; Barinka, C. *J. Med. Chem.* **2016**, *59*, 4539-4550.
13. “Discovery of Orally Available Prodrugs of the Glutamate Carboxypeptidase II (GCPII) Inhibitor 2-Phosphonomethylpentane dioic acid (2-PMPA)” Majer, P.; Jancarik, A.; Krecmerova, M.; Tichy, T.; Tenora, L.; Wozniak, K.; Wu, Y.; Pommier, E.; **Ferraris, D**.; Rais, R.; Slusher, B. *J. Med. Chem*. **2016**, *59*, 2810-2819.
14. “Discovery of 6-Diazo-5-oxo-norleucine (DON) Prodrugs with Enhanced CSF Delivery in Monkeys, a Potential Treatment for Glioblastoma” Rais, R.; Jančařík, A.; Tenora, L; Nedelcovych, M.; Alt, J.; Englert, J; Rojas, C.; Le, A.; Elgogary, A.; Tan, J.; Monincova, L.; Pate, K.; Adams, R.; **Ferraris, D.**; Powell, J.; Majer, P.; Slusher, B. *J. Med. Chem.* **2016**, *59*, 8621-8633.
15. **Book Chapter in *PARP Inhibitors for Cancer Therapy*** Curtin, N., Sharma, R. Eds.: **“**Overview of PARP Inhibitor Design and Optimization”, **Ferraris, D.**, **2015**, pp. 183-203.
16. “6-Hydroxy-1,2,4-triazine-3,5(2H, 4H)-dione Derivatives as Novel D-Amino Acid Oxidase Inhibitors” Hin, N.; Duvall, B.; **Ferraris, D**.; Alt, J.; Thomas, A. G.; Rais, R.; Rojas, C.; Wu, Y.; Wozniak, K.; Slusher, B.; Tsukamoto, T. *J. Med. Chem*. **2015**, *58*, 7258-7272.
17. “D-Amino-Acid Oxidase Inhibition Increases D-Serine Plasma Levels in Mouse but not in Monkey” Rojas, C.; Alt, J.; Ator, N. A.; Thomas, A. G.; Wu, Y.; Hin, N.; Wozniak, K.; **Ferraris, D**.; Rais, R.; Tsukamoto, T.; Slusher, B. *Neuropsychopharmacology* **2015**, 1-10.
18. **“**Design, Synthesis, and Pharmacological Evaluation of Fluorinated Tetrahydrouridine Derivatives as Inhibitors of Cytidine Deaminase" **Ferraris, D.**, Duvall, B., Delahanty, G., Mistry, B., Alt, J., Rojas, C., Rowbottom, C., Sanders, K., Schuck, E., Huang, K-C., Redkar, S., Slusher, B., Tsukamoto, T. *J. Med. Chem.* **2014**, *57*, 2582-2588.
19. **“**δ-Thiolactones as Prodrugs of Thiol-Based Glutamate Carboxypeptidase II (GCPII) Inhibitors” **Ferraris, D.**, Majer, P., Ni, C., Slusher, C. E., Rais, R., Wu, Y., Wozniak, K., Alt, J., Rojas, C., Slusher, B., Tsukamoto, T. *J. Med. Chem.* **2014**, *57*, 243-247.
20. “Peptidomimetics of Arg-Phe-NH2 as Small Molecule Agonists of MAS-Related Gene C (MrgC) Receptors” Hin, N., Alt, J., Zimmermann, S., Delahanty, G., **Ferraris, D. V.**, Rojas, C., Li, F., Liu, Q., Dong, X., Slusher, B., Tsukamoto, T. *Bioorg. Med. Chem. Lett.* **2014**, *22*, 5831-5837.
21. **“**Dual Leucine Zipper Kinase (DLK) as a Therapeutic Target for Neurodegenerative Conditions**” Ferraris, D.,** Yang, Z., Welsbie, D.*Future Med. Chem.* **2013,** *5,* 1923-1934*.*
22. “Kinetic Characterization of Ebselen, Chelerythrine and Apomorphine as Glutaminase Inhibitors” Thomas, A.G., Roja,s C., Tanega, C., Shen, M., Simeonov, A., Boxer, M., Auld, D.S., **Ferraris, D.**, Tsukamoto, T., Slusher, B. *Biochem. Biophys. Res. Comm*. **2013**, *438*, 243-248.
23. “Synthesis of Kojic Acid Derivatives as Secondary Binding Site Probes of D-Amino Acid Oxidase” Raje, M., Hin, N., Duvall, B., **Ferraris, D.**, Berry, J., Thomas, A.G., Alt, J., Rojas, C., Slusher, B., Tsukamoto, T. *Bioorg. Med. Chem. Lett.* **2013**, *23*, 3910-3913.
24. “Design, synthesis and pharmacological evaluation of bis-2-(5-phenylacetamido-1,2,4-thiadiazol-2-yl)ethyl sulfide (BPTES) analogs as glutaminase inhibitors” Shukla, K.; **Ferraris, D.**; Thomas, A.; Stathis, M.; Duvall, B.; Delahanty, G.; Alt, J.; Rais, R.; Rojas, C.; Gao, P.; Xiang, Y.; Dang, C. V.; Slusher, B.; Tsukamoto, T. *J. Med. Chem.* **2012**, 55, 10551-10563.
25. “Synthesis and Structure-Activity Relationships of 1-Hydroxy-1H-benzo[d]imidazol-2(3H)-ones as Inhibitors of D-Amino Acid Oxidase” Berry, J.; **Ferraris, D**.; Duvall, B.; Hin, N.; Rais, R.; Alt, J.; Thomas, A.; Rojas, C.; Hashimoto, K.; Slusher, B.; Tsukamoto, T. *Med. Chem. Lett.* **2012***, 10,* 839-843.
26. “Design, Synthesis and Pharmacological Evaluation of Glutamate Carboxypeptidase II (GCPII) Inhibitors Based on Thioalkylbenzoic Acid Scaffolds” Stoermer, D.; Vitharana, D.; Hin, N.; Delahanty, G.; Duvall, B.; **Ferraris, D.**; Grella, B.; Hoover, R.; Rojas, C.; Shanholtz, M.; Smith, K.; Stathis, M.; Wu, Y.; Wozniak, K.; Slusher, B.; Tsukamoto, T. *J. Med. Chem*. **2012**, *55*, 5922-5932.
27. “The Metabolic Profile of Tumors Depends on Both the Responsible Genetic Lesion and Tissue Type” Yuneva, M. O.; Fan, T. W. M.; Allen, T. D.; Higashi, R. M.; **Ferraris, D.**; Tsukamoto, T.; Mates, J. M.; Alonso, F. J.; Wang, C.; Seo, Y.; Chen, X.; Bishop, J. M. *Cell Metabolism* **2012**, *15*, 157-170.
28. “Structure Activity Relationships of Glutamate Carboxy Peptidase II (GCP II) Inhibitors” **Ferraris, D.**; Shukla, K.; Tsukamoto, T. *Curr. Med. Chem*. **2012**, 19, 1282-1294.
29. “Development of a High-throughput Method for the Determination of Pharmacological Levels of Plasma D-Serine” Alt, J.; Rojas, C.; Wozniak, K.; Wu, Y.; **Ferraris, D**.; Tsukamoto, T.; Slusher, B. *Anal. Biochem.* **2011**, *419*, 106-109.
30. “Recent Advances in the Discovery of D-Amino Acid Oxidase Inhibitors and Their Therapeutic Utility in Schizophrenia” **Ferraris, D.**; Tsukamoto, T. *Current Pharm. Des*. **2011**, *17*,103-111.
31. “Inhibition of xc- Transporter Mediated Cystine Uptake by Sulfasalazine Analogs” Shukla, K.; Thomas, A. G.; **Ferraris, D**.; Hin, N.; Sattler, R.; Alt, J.; Rojas, C.; Slusher, B.; Tsukamoto, T. *Bioorg. Med. Chem. Lett.* **2011**, *21*, 6184-6187.
32. “Reduced BACE-1 Activity Enhances Clearance of Myelin Debris and Regeneration of Axons in the Injured Peripheral Nervous System” Farah, M. H.; Pan, B. H.; Hoffman, P. N.; **Ferraris, D.**; Tsukamoto, T.; Nguyen, T.; Wong, P.C.; Price, D. L.; Slusher, B. S.; Griffin, J. W. *J. Neurosci*. **2011**, *31*, 5744-5754.
33. “The Discovery and Structure-Activity Relationships of Indole-based Inhibitors of Glutamate Carboxypeptidase II” Grella, B.; Adams, J.; Berry, J.; **Ferraris, D.**; Majer, P.; Ni, C.; Shukla, K.; Shuler, S.; Slusher, B.; Stathis, M.; Tsukamoto, T. *Bioorg. Med. Chem. Lett.* **2010**, *20*, 7222-7225.
34. “Inhibition of Glutaminase Preferentially Slows Growth of Glioma Cells with Mutant IDH1” Seltzer, M.; Bennett, B. D.; Joshi, A.D.; Gao, P.; Thomas, A. G.; **Ferraris, D.**; Tsukamoto, T.; Rojas, C. J.; Slusher, B.; Rabinowitz, J. D.; Dang, C. V.; Riggins, G. J. *Cancer Res.* **2010**, *70*, 8981-8987.
35. “Evolution of Poly(ADP-ribose) Polymerase Inhibitors. From Concept to Clinic” **Ferraris, D.** *J. Med. Chem.* **2010**, *53*, 4561-4584.
36. “Co-Administration of a D-Amino Acid Oxidase Inhibitor Potentiates the Efficacy of D-Serine in Attenuating Prepulse Inhibition Deficits After Administration of Dizocilpine” Hashimoto, K.; Fujita, Y.; Horio, M.; Kunitachi, S.; Ivo, M.; **Ferraris, D**.; Tsukamoto, T. *Biol. Psychiatry*, **2009**, *65*, 1103-1106.
37. “Synthesis and Biological Evaluation of D-amino Acid Oxidase Inhibitors” **Ferraris, D**.; Duvall, B. Ko, Y.-S., Thomas, A. G.; Rojas, C.; Majer, P.; Tsukamoto, T. *J. Med. Chem.* **2008**, *51*, 3357-3359.
38. “Catalytic, Asymmetric Alkylation of Imines” **Ferraris, D.** *Tetrahedron*, **2007**, *63*, 9581-9597.
39. “Azetidine-based Inhibitors of Dipeptidyl Peptidase IV” **Ferraris, D**.; Belyakov, S.; Li, W.; Oliver, E.; Ko, Y.-S.; Calvin, D.; Lautar, S. *Current Topics in Medicinal Chemistry*, **2007**, *7*, 597-608.
40. “Novel Mechanism of Inhibition of Rat Kidney-type Glutaminase by Bis-2-(5-Phenylacetamido-1,2,4-Thiadiazo-2-yl)Ethyl Sulfide (BPTES)” Robinson, M. M.; McBryant, S. J.; Tsukamoto, T.; Rojas, C.; **Ferraris, D.**; Hamilton, S. K.; Hansen, J. C.; Curthoys, N. P. *Biochem. J*. **2007**, *406*, 407-414.
41. “Glutamate production by HIV-1 infected human macrophage is blocked by the inhibition of glutaminase” Erdmann, N.; Zhao, J; Lopez, A; Herek, S.; Curthoys, N.; Hexum, T.D.; Tsukamoto, T.; **Ferraris, D**.; Zheng, J. *J. Neurochem.***2007**,*102*, 539-549.
42. “Structure-Function Analysis of Water Soluble Inhibitors of Catalytic Domain of Exotoxin A from *Pseudomonas aeruginosa*” Yates, S.; Taylor, P. L.; Jorgensen, R.; **Ferraris, D.**, Zhang, J.; Anderson, G. R.; Merrill, A. R. *Biochem. J*. **2005**, *385*, 667-675.
43. “DPP IV Inhibitor Blocks Mescaline-induced Scratching and Amphetamine-induced Hyperactivity in Mice” Lautar, S. L; Rojas, C.; Slusher, B.; Wozniak, K. M.; Wu, Y.; Thomas, A. G.; Waldon, D.; Li, W.; **Ferraris, D**.; Belyakov, S. *Brain Res*. **2005**, *1048*, 177-184.
44. “Ketopyrrolidine and Ketoazetidines as Potent Dipeptidyl Peptidase IV (DPP IV) Inhibitors” **Ferraris, D.**; Ko, Y.-S.; Calvin, D.; Chiou, T.; Lautar, S.; Thomas, B.; Wozniak, K.; Rojas, C.; Kalish, V.; Belyakov, S. *Bioorg. Med. Chem. Lett.* **2004**, *14*, 5579-5583.
45. “Design and Synthesis of Poly(ADP-ribose)polymerase-1 (PARP-1) Inhibitors. Part 4: Biological Evaluation of Imidazobenzodazepines as Potent PARP-1 Inhibitors for Treatment of Ischemic Injuries” **Ferraris, D.**; Pargas-Ficco, R.; Dain, D.; Ginski, M.; Lautar, S.; Lee-Wisdom, K.; Liang, S.; Lin, Q.; Lu, M.-X.-C.; Morgan, L.; Thomas, B.; Williams, L. R.; Zhang, J.; Zhou, Y.; Kalish, V. *Bioorg. Med. Chem.* **2003**, *11*, 3695-3707.
46. “Design and Synthesis of Poly(ADP-ribose)polymerase-1 (PARP-1) Inhibitors. Part 3: In Vitro Evaluation of 1,3,4,5-Tetrahydro[c][1,6]- and [c][1,7]-naphthridin-6-ones” **Ferraris, D.**; Pargas-Ficco, R.; Pahutski, T.; Lautar, S.; Huang, S.; Zhang, J.; Kalish, V. *Bioorg. Med. Chem. Lett.* **2003**, *13*, 2513-2518.
47. “Design and Synthesis of Poly ADP-ribose polymerase-1 Inhibitors. 2. Biological evaluation of Aza-5[*H*]phenanthridin-6-ones as Potent, Aqueous-Soluble Compounds for the Treatment of Ischemic Injuries” **Ferraris, D.**; Ko, Y.-K.; Pahutski, T.; Pargas Ficco, R.; Serdyuk, L.; Alemu, C.; Bradford, C.; Chiou, T.; Hoover, R.; Huang, S.; Lautar, S.; Liang, S.; Lin, Q.; Lu, M. X.-C.; Mooney, M.; Morgan, L.; Qian, Y.; Tran, S.; Williams. L. R.; Wu, Q. Y.; Zhang, J.; Zou, Y.; Kalish, V. *J. Med. Chem.* **2003**, *46*, 3138-3151.
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51. “Catalytic, Enantioselective Alklyations of N,O- and N, N-Acetals and Hemiacetals” **Ferraris, D.**; Young, B.; Dudding, T.; Drury, W.; Lectka, T. *Tetrahedron* **1999**, *55*, 8869-8882.
52. “Nucleophilic Metal Complexes as Acylation Catalysts: Solvent-Dependent “Switch” Mechanisms Leading to the First Catalyzed Staudinger Reaction” Wack, H.; Drury, W. J.; Taggi, A. E.; **Ferraris, D.**; Lectka, T. *Org. Lett.*, **1999**, *1*, 1985-1988.
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**Issued Patents**

1. ‘Certain Compounds, Compositions and Methods’ Hamilton, G. S.; Tsukamoto, T.; **Ferraris, D. V**.; Duvall, B.; Lapidus, R. U. S. Patent 8,268,800, Sept. 18, 2012.
2. ‘Compounds and their Uses’ **Ferraris, D. V.;** Li, J.-H.; Kalish, V.; Zhang, J. U.S. Patent 7,915,280, March 29, 2011.
3. ‘Compositions and Methods for Treating Cancer’Belyakov, S.; Duvall, B.; **Ferraris, D. V.**; Hamilton, G.; Vaal, M. U.S. Patent 279,977, Nov. 4, 2010.
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5. ‘Compounds and their uses’ **Ferraris, D. V.**; Li, J.-H.; Kalish, V.; Zhang, J. U.S. Patent 7,235,557, May 26, 2007.
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7. ‘Sulfonamide and Carbamide Derivatives of 6(5H)phenanthridones and their uses’ Li, J.-H.; Kalish, V.; Zhang, J.; Serdyuk, L. E.; **Ferraris, D. V.**; Xiao, G.; Kletzly, P. W.; U. S. Patent 6,723,733, April 20, 2004.
8. ‘Symmetrically Substituted Aromatic Compounds and Pharmaceutical Compositions for Inhibiting poly(ADP-ribose) Glycohydrolase and Methods for Their Use’ Li, J.-H.; **Ferraris, D. V.**; Kletzly, P.; Li, W.; Wang, E. Y.; Xing, A.; Xu, W.; Zhang, J.; U. S. Patent 6,635,786, Oct. 21, 2003.

**Invited Presentations**

* University of Maryland, Baltimore Campus, **February 2022**, Title: *The Design, Synthesis and Evaluation of mono(ADP-ribosyl) transferase Inhibitors as Chemical Probes*
* St. Johns University, **May 2021**, Title: *The Design, Synthesis and Evaluation of mono(ADP-ribosyl) transferase Inhibitors as Chemical Probes*
* Stevenson University, **October 2015**, Title: *The Evolving Role of Medicinal Chemists in Drug Discovery*
* Johns Hopkins Medical School, **June** **2013**, Title: *Drug Discovery at the Brain Science Institute: Glutamate Carboxypeptidase II as a therapeutic target*
* St. Johns University, **December 2012**, Title: *Poly(ADPribose)polymerases as Therapeutic Targets*
* Celgene Inc., **June 2012, Title:** *Poly(ADPribose)polymerases as Therapeutic Targets*
* Lafayette College, **September 2012**, Title: *Current Landscape of Drug Discovery Research: Challenges and Opportunities*
* Johns Hopkins University, **April 2009,** Title: *DAAO Inhibitors for the Treatment of Schizophrenia*
* 227th American Chemical Society National Meeting, **April 2004**, Title: *PARP-1 Inhibitors as Neuroprotective Agents*