## **Department of Chemistry • RICE UNIVERSITY**

6500 Main Street, BRC 377, Houston, TX 77030 • E-mail: kurti.laszlo@rice.edu • Tel (Office): 1-(713)-348-4353

# LÁSZLÓ KÜRTI, Ph.D.

#### **Full Professor**

#### **EMPLOYMENT AND EDUCATION**

•	Full Professor – Tenured Position at Rice University, Houston, Texas (July 1, 2021)  Associate Professor – Tenured Position at Rice University, Houston, Texas (Tenured	2021-
	Since May 2018)	2015–2021
•	Assistant Professor – Tenure Track Position at UT Southwestern Medical Center, Dallas, Texas (09/2010)	2010–2015
•	Postdoctoral Studies – Harvard University, Cambridge, MA (11/2006 to 8/2010)	2006-2010
•	Ph.D. in Organic Chemistry – University of Pennsylvania, Philadelphia, PA	2001-2006
•	Masters Degree in Organic Chemistry – University of Missouri, Columbia, MO	2001 June
•	<b>Diploma in Chemistry</b> – Lajos Kossuth University (now Univ. of Debrecen), Debrecen, Hungary	1998 June
•	<b>Diploma in English Hungarian Technical Translation</b> - Lajos Kossuth University (now Univ. of Debrecen), Debrecen, Hungary	1997 June

#### **RESEARCH EXPERIENCE**

• Associate Professor at Rice University, Houston, TX

2015-2021

- Current research interests include:
  - ✓ Low-temperature, direct and transition metal-free primary amination of aryl- and alkylmetals (Li, Mg).
  - ✓ Bench stable doubly electrophilic *N*-linchpin reagents for the low temperature and transition metal-free synthesis of secondary diaryl-, arylalkyl and dialkyl amines as well as structurally diverse *N* and *O*-heterocycles.
  - ✓ Catalytic enantioselective olefin *N*-H aziridination as well as olefin bisfunctionalization exploiting both metal-catalyzed as well as transition metal-free (i.e., organocatalytic) processes.
- Assistant Professor at UT Southwestern Medical Center, Dallas, TX Completed method-development projects include:

2010–2015

- ✓ Metal-free primary amination of arylboronic acids using 2,4-dinitrophenyl hydroxylamine (DPH).
- ✓ Organocatalytic enantioselective aryl-aryl bond-formation for the prepartion of axially chiral BINOL and BINAM derivatives.
- ✓ Direct arylation of nitroarenes with aryl Grignards to afford densely substituted aminohydroxy biaryls (i.e., NOBINs) by exploiting a low-temperature multi-heteroatom [3,3]-sigmatropic rearrangement.
- ✓ Aerobic, transition metal-free, direct and regiospecific alpha-arylation of ketones with nitroarenes.
- ✓ Direct and stereospecific *N*-H and *N*-Me aziridination of olefins.
- ✓ Low-temperature, transition metal-free intramolecular amination of aromatic C-H bonds to access carbazoles and multi-heteroatom fused heterocycles.
- ✓ One-pot synthesis of benzo[b]furans from ketone oximes via a transition metal-free O-Arylation/sigmatropic rearrangement cascade sequence.
- Damon Runyon Cancer Fellow at Harvard University; Advisor: Prof. Elias J. Corey

2006-2010

2001-2006

- ✓ Designed and synthesized potent analogs of the anti-angiogenic steroidal alkaloid Cortistatin A.
- ✓ Developed a rapid and scalable synthetic sequence for the construction of the carbocyclic skeleton of Cortistatin A and a previously unknown homo B-estrone.
- Graduate Student at the University of Pennsylvania; Advisor: Prof. Amos B. Smith III.

✓ Optimized a 17-step, large-scale synthesis leading to the Eastern Hemisphere Subtarget, the key intermediate in the total synthesis of the nodulisporic acids.

- ✓ Developed a new indole synthesis that allows the preparation of highly strained polycyclic indoles.
- ✓ Applied the new indole synthesis for the construction of the parent CDEF tetracycle of the nodulisporic acids A and B, thus allowing, for the first time, the *de novo* synthesis of analogs.

students.

 Graduate Student at the University of Missouri-Columbia; Advisor: Prof. Michael Harmata 1998-2001

- ✓ Developed an efficient assembly of seven-membered bridgehead halo-ketones by using intermolecular [4+3] cycloaddition reactions and studied their highly diastereoselective quasi-Favorskii rearrangement for the rapid assembly of fused polycarbocycles.
- ✓ Synthesized and characterized radioactive rhenium and technetium complexes with potential applications in the clinical diagnosis/treatment of cancer.
- Undergraduate Student at Lajos Kossuth University; Advisor: Prof. Sándor Antus

1996-1998

- Accomplished the total synthesis of four benzofuranoid neolignans, fragnasol A, B, C and dehydroisoeugenol.
- Designed and executed an efficient synthesis of the potent anti-leukemic natural product asatone and its simplified derivative, demethoxyasatone, using hypervalent iodine-mediated phenolic oxidation as the key step.
- Investigated the mechanism of the hypervalent iodine-mediated oxidation of phenols.

#### TEACHING, MENTORSHIP AND LEADERSHIP EXPERIENCE

Associate Professor at Rice University, Houston, TX (Start date: June 1, 2015)
 Currently teach both graduate and undergraduate level classes (i.e., one each per semester) and also coordinate/oversee the research activities of postdoctoral fellows, graduate as well as undergraduate students. Will soon introduce a new heterocyclic chemistry as well as a medicinal chemistry course for graduate

2015 June-

- ✓ Organic Chemistry I (Chem 211 & Chem 319), an intensive (2 x 1.5 hrs/week + 1 x 2 hrs/week problem-solving) undergraduate level course at Rice University
- ✓ Advanced Organic Chemistry (Chem 401/501/503), an intensive (2 x 1.5 hrs/week
   + 1 x 2 hrs/week problem-solving) graduate level course at Rice
- ✓ Named Organic Reactions (Chem 553), an intensive (2 x 1.5 hrs/week + 1 x 2 hrs/week problem-solving) graduate level course at Rice University (2018, 2020, 2021, 2022 & 2023)
- Assistant Professor at UT Southwestern Medical Center, Dallas, TX (Start date: Sept 1, 2010)
  - Taught one course each year and mentored a total of six postdoctoral fellows, a graduate student as well as two summer undergraduate students over five years (2010-2015). My duties involved: (a) discussion of results for each project on a daily basis; (b) encouragement of independence and initiative in designing and carrying out experiments to prove or disprove hypotheses; (c) weekly group meetings in which trainees learn to present their research in an effective manner; (d) review of literature and deep mechanistic discussions.
  - ✓ Structure and Reactivity, an intensive (2 x 2 hrs/week + 1 x 2 hrs/week problem-solving) graduate level course at UT Southwestern Medical Center Fall Semesters of 2011-2014, Spring Semester 2015
  - ✓ Biologically Active Small Molecules, a graduate level course (1 x 2 hrs/week) at
    UT Southwestern Medical Center Spring Semester of 2011
- Coordinator of the Organic Chemistry Workshop Program at the University of Pennsylvania

  2002–2006

  2002–2006
  - Organized problem-solving seminars for over 200 undergraduates each semester (Fall/Spring/Summer) who took organic chemistry. Over a span of 4 years, more than 2500 students participated in the program.
- Graduate Teaching Assistant at the University of Pennsylvania
  - Led organic chemistry recitations for Professors Bryan Roberts, Madeleine Joullié, Amos B. Smith, Virgil Percec, Gary Molander and Edward Thronton.
- Graduate Teaching Assistant at the University of Missouri-Columbia
  - Taught organic chemistry labs and recitations for Professors Michael Harmata, Edwin Kaiser, Richard Loeppky and Rainer Glaser.

2001–2005

1998-2001

## HONORS, AWARDS AND FELLOWSHIPS

•	Biotage Young Principal Investigator Award	Nov. 2015
•	NSF CAREER Award	2015–2020
•	<b>Japan Society for the Promotion of Science (JSPS) Fellowship</b> (Lecture tour in Japan in Nov 2014)	Aug. 2014
•	Amgen Young Investigators' Award	Apr. 2014
•	Thieme Chemistry Journal Award	Nov. 2010
•	UTSWMC Endowed Scholar in Biomedical Research (startup funding)	Sept. 2010
•	Best of Physical Sciences and Mathematics in Professional and Scholarly Publishing for <i>Molecules and Medicine</i> written by E.J. Corey, László Kürti and Barbara Czakó, [This award is given by the American Association of Publishers, Scholarly Publishing Division, to acknowledge excellence in book, journal and digital publishing in all the disciplines represented by professional, scholarly and reference publishing. The awards are open only to members of the AAP / PSP Division. Read more at www.pspcentral.org ]	2008
•	<b>Damon Runyon Cancer Fellowship</b> – Awarded by the Damon Runyon Cancer Research Foundation	June, 2007
•	<b>Outstanding Academic Title</b> designation by Choice Magazine for <i>Strategic Applications of Named Reactions in Organic Synthesis</i> written by <b>László Kürti</b> and Barbara Czakó. [This designation is given only to 10% of over 7000 titles for their excellence in scholarship and presentation, the significance of their contribution to their field and their value.]	Feb., 2007
•	Dean's Teaching Award - University of Pennsylvania	Apr., 2006
•	Award for Excellence in Professional and Scholarly Publishing for Strategic Applications of Named Reactions in Organic Synthesis written by László Kürti and Barbara Czakó	2006
•	Dean's Scholar Award – University of Pennsylvania	Mar., 2004
•	Eli Lilly Graduate Fellowship – Eli Lilly and Company	2003–2004
•	Department of Chemistry Teaching Award – University of Pennsylvania	Apr., 2003
•	Department of Chemistry Teaching Commendation – University of Pennsylvania	Apr., 2002
•	<b>Excellence in Organic Chemistry Award</b> – by the Chemistry Department of the University of Pennsylvania	Apr., 2002
•	<b>Ahmed Zewail Graduate Fellowship</b> – by the Chemistry Department of the University of Pennsylvania	2001–2002
•	<b>Stevens Fellowship</b> – Summer Research Fellowship of the University of Missouri-Columbia	1996, 1997
•	Supplementary Grant for Graduate Studies in the United States – by the George Soros Foundation in Hungary	June, 1998
•	Outstanding Achievement in Science Award – by Lajos Kossuth University in Debrecen, Hungary	1998
•	Pro Regione Fellowship – by Lajos Kossuth University in Debrecen	1997–1998
•	Fellowship of the Republic – by the Government of Hungary	1997–1998

#### **Independent Work:**

- Das, Tamal K.; Rodriguez Trevino, Agustin M.; Pandiri, Sanjay N.; Irvankoski, Sini; Siitonen, Juha H.; Rodriguez, Sara M.; Yousufuddin, Muhammed and and Kürti, László\* "Catalyst-Free Transfer-Hydrogenation of Acivated Alkenes Exploiting Isopropoanol as the Sole and Traceless Reductant" Green Chemistry 2023, 25, 746-754. Advance Article https://doi.org/10.1039/D2GC04315G
- 40. Kattamuri, Padmanabha, V.; Zhao, Jidong; Das, Tamal K.; Siitonen, Juha H.\*; Morgan, Nathan; Ess, Daniel H.\* and **Kürti, László**\* "Aza-Quasi-Favorskii Reaction: Construction of Highly Substituted Aziridines through a Concerted Multi-Bond Rearrangement Process" *J. Am. Chem. Soc.* **2022**, *144*, 24, 10943-10949. https://doi.org/10.1021/jacs.2c03805
- 39. Serna, Ana V.; **Kürti, László\*** and Siitonen, Juha H.\* "Synthesis of (±)-Setigerumine I: Biosynthetic Origins of the Elusive Racemic *Papaveraceae* Isoxazolidine Alkaloids" *Angew. Chem. Int. Ed.* **2021**, 60, 27236-27240. <a href="https://doi.org/10.1002/ange.202111049">https://doi.org/10.1002/ange.202111049</a>; This article was featured in Rice News: "*Rice lab first to mimic molecule found in poppies*." <a href="https://news.rice.edu/news/2021/rice-lab-first-mimic-molecule-found-poppies">https://news.rice.edu/news/2021/rice-lab-first-mimic-molecule-found-poppies</a>
- 38. Zhu, Zhe and **Kürti, László\*** "Substitution-type Electrophilic Amination Using Hydroxylamine-Derived Reagents" in *Methodologies in Amine Synthesis: Challenges and Applications*, **2021**, 1-30. John Wiley & Sons, Book Editors: Ricci, Alfredo & Bernardi, Luca. <a href="https://doi.org/10.1002/9783527826186.ch1">https://doi.org/10.1002/9783527826186.ch1</a>
- Paudyal, Mahesh P.; Wang, Mingliang; Siitonen, Juha H.; Yousufuddin, Muhammed; Shen, Hong C.; Falck, John R.\* and Kürti, László\*. "Intramolecular N-Me and N-H Aminoetherification for the Synthesis of N-Unprotected 3-Amino-O-Heterocycles" Org. Biomol. Chem., 2021, 19, 557–560. <a href="https://doi.org/10.1039/D0OB02122A">https://doi.org/10.1039/D0OB02122A</a>
- Zhang, Junliang\* and Kürti, László\*. "Multi-layer 3D Chirality: Its Enantioselective Synthesis and Aggregation-Induced Emission (AIE)" National Science Review, Volume 8, Issue 1, January 2021, nwaa205, https://doi.org/10.1093/nsr/nwaa205
- 35. Hilario-Martínez, J. Ciciolil; Murillo, Fernando; García-Méndez, Jair; Dzib, Eugenia; Sandoval-Ramírez, Jesús; Muñoz-Hernández, Miguel Ángel; Bernès, Sylvain; Kürti, László; Duarte, Fernanda; Merino, Gabriel\* and Fernández-Herrera, María A.\* "trans-Hydroboration—Oxidation Products in Δ<sup>5</sup>-Steroids via a Hydroboration-retro-Hydroboration Mechanism" Chem. Sci. 2020, 11, 12764-12768. <a href="https://doi.org/10.1039/D0SC01701A">https://doi.org/10.1039/D0SC01701A</a>
- 34. Behnke, Nicole Erin; Siitonen, Juha H.; Chamess, Stephen and **Kürti, László**\*. "Synthesis of Highly-Substituted Cyclopropanes *via* the Quasi-Favorskii Rearrangement of α,α-Dichlorocyclobutanols" *Org. Lett.*, **2020**, 22, 5715-5720. <a href="http://dx.doi.org/10.1021/acs.orglett.0c01229">http://dx.doi.org/10.1021/acs.orglett.0c01229</a>; Featured as a Cover on 08/07/2020.
- 33. Lovato, Kaitlyn; Bhakta, Urmibhusan; Ng, Yi-Pin and **Kürti, László\***. "*O*-Cyclopropyl Hydroxylamines: Gramscale Synthesis and Utility as Precursors for *N*-Heterocycles" *Org. Biomol. Chem.*, **2020**, *18*, 3281–3287. <a href="https://doi.org/10.1039/D0OB00611D">https://doi.org/10.1039/D0OB00611D</a>
- 32. Cheng, Qing-Qing; Zhou, Zhe; Jiang, Heming; Siitonen, Juha H.; Ess, Daniel H.; Zhang, Xinhao and Kürti, László\*. "Organocatalytic Nitrogen-Transfer to Unactivated Olefins via Transient Oxaziridines" Nat. Catal. 2020, 3, 386-392. https://www.nature.com/articles/s41929-020-0430-4; This paper was featured in C&EN "How aziridines without metals". News: to make from olefins expensive https://cen.acs.org/synthesis/catalysis/make-aziridines-olefins-without-expensive/98/web/2020/02 as well Rice News; "Rice scientists simplify access to drug building block", https://news.rice.edu/2020/02/24/rice-scientists-simplify-access-to-drug-building-block-2/; This article was highlighted SYNFACTS 0582. also in 2020, 16(05), https://www.thiemeconnect.com/products/ejournals/html/10.1055/s-0040-1707448
- 31. Siitonen, Juha H.\*; Yousufuddin, Muhammed and **Kürti, László**\* "Total Synthesis and Structural Verification of Isatindigotindoline C" *Org. Biomol. Chem* **2020**, *18*, 2051-2053. https://pubs.rsc.org/en/content/articlepdf/2020/ob/d0ob00270d
- Siitonen, Juha H.; Kattamuri, Padmanabha V.; Yousufuddin, Muhammed and Kürti, László\*. "Arylboronic Acid-Catalyzed C-Allylation of Unprotected Oximes: Total Synthesis of N-Me-Euphococcine" Org. Lett. 2020, 22, 6, 2486-2489. https://pubs.acs.org/doi/abs/10.1021/acs.orglett.0c00727
- 29. Bhakta, Urmibhusan; Kattamuri, Padmanabha V.; Siitonen, Juha H.; Alemany, Lawrence B. and **Kürti, László**\*. "Enantioselective Catalytic Allylation of Acyclic Ketiminoesters: Synthesis of α-Fully-Substituted Amino Esters" *Org. Lett.* **2019**, *21*, 9208-9211. https://doi.org/10.1021/acs.orglett.9b03574

- 28. Behnke, Nicole Erin; Lovato, Kaitlyn; Yousufuddin, Muhammed and **Kürti, László**\*. "Ti-Mediated Synthesis of Spirocyclic NH-Azetidines from Oxime Ethers" *Angew. Chem. Int. Ed.* **2019**, *58*, 14219-14223. (*Hot Paper*; <a href="https://onlinelibrary.wiley.com/doi/10.1002/anie.201909151">https://onlinelibrary.wiley.com/doi/10.1002/anie.201909151</a>; This article was featured in *Rice News*: "Rice chemists show that it is hip to be square." <a href="https://news.rice.edu/2019/08/09/rice-chemists-show-its-hip-to-be-square/">https://news.rice.edu/2019/08/09/rice-chemists-show-its-hip-to-be-square/</a>
- Lu, Shenci; Ng, Shawn Voon Hwee; Lovato, Kaitlyn, Ong, Jun-Yang; Poh, Si Bei; Ng, Xiao Qian; Kürti, László\* and Zhao, Yu\*. "Practical access to axially chiral sulfonamides and biaryl amino phenols via organocatalytic atroposelective *N*-alkylation" Nat. Commun. 2019, 10, 3061. https://www.nature.com/articles/s41467-019-10940-4
- 26. Zhou, Zhe and **Kürti, László**\*. "Electrophilic Amination: An Update" *Synlett*, **2019**, *30*, 1525-1535. <a href="https://www.thieme-connect.com/products/ejournals/pdf/10.1055/s-0037-1611861.pdf">https://www.thieme-connect.com/products/ejournals/pdf/10.1055/s-0037-1611861.pdf</a>
- Kattamuri, Padmanabha V.; Bhakta, Urmibhusan; Siriwongsup, Surached; Kwon, Doo-Hyun; Alemany, Lawrence B.; Yousufuddin, Muhammed; Ess, Daniel H.\*; and Kürti, László\*. Synthesis of Structurally Diverse 3-, 4-, 5- and 6-Membered Heterocycles from Diisopropyl Iminomalonates and Soft C-Nucleophiles"
   J. Org. Chem. 2019, 84, 7066-7099. <a href="https://pubs.acs.org/doi/10.1021/acs.joc.9b00681">https://pubs.acs.org/doi/10.1021/acs.joc.9b00681</a>
- 24. Guo, Lirong; Liu, Fengting; Wang, Liying; Yuan, Hairui; Feng, Lei; **Kürti, László** and Hongyin Gao\*. "Cascade Approach to Highly Functionalized Biaryls by a Nucleophilic Aromatic Substitution with Arylhydroxylamines" *Org. Lett.* **2019**, *21*, 2894-2898. http://pubs.acs.org/doi/pdf/10.1021/acs.orglett.9b00927
- 23. Zhou, Zhe; Cheng, Qing-Qing and **Kürti, László**\*. "Aza-Rubottom Oxidation: Synthetic Access to Primary α-Aminoketones." *J. Am. Chem. Soc.* **2019**, *141*, 2242-2246 (http://pubs.acs.org/doi/pdf/10.1021/jacs.8b1381): This article was featured in *Rice News*: "Nitrogen gets into the fast lane for chemical synthesis", https://news.rice.edu/2019/02/08/nitrogen-gets-in-the-fast-lane-for-chemical-synthesis/
- 22. Behnke, Nicole Erin; Kielawa, Russell; Kwon, Doo-Hyun; Ess, Daniel H. and **Kürti, László**\*. "Direct Primary Amination of Alkylmetals with NH-Oxaziridine" *Org. Lett.* **2018**, *20*, 8064-8068. <a href="http://pubs.acs.org/doi/pdf/10.1021/acs.orglett.8b03734">http://pubs.acs.org/doi/pdf/10.1021/acs.orglett.8b03734</a>
- Lovato, Kaitlyn; Guo, Lirong; Xu, Qing-Long; Liu, Fengting; Yousufuddin, Muhammed; Ess, Daniel H.\*; Kürti, László\* and Hongyin Gao\* "Transition Metal-Free Direct Dehydrogenative Arylation of Activated C(sp³)-H Bonds: Synthetic Ambit and DFT Reactivity Predictions" Chem. Sci. 2018, 9, 7992-7999. <a href="https://pubs.rsc.org/en/content/articlepdf/2018/sc/c8sc02758g">https://pubs.rsc.org/en/content/articlepdf/2018/sc/c8sc02758g</a>; This article was featured in SYNFACTS 2018, 14(11), 1181 (<a href="https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0037-1611028">https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0037-1611028</a>)
- 20. Zhou, Zhe; Behnke, Nicole Erin and **Kürti, László**\*. "Copper-Catalyzed Synthesis of Hindered Ethers from α-Bromo Carbonyl Compounds" *Org. Lett.* **2018**, *20*, 5452-5456. <a href="http://pubs.acs.org/doi/pdf/10.1021/acs.orglett.8b02371">http://pubs.acs.org/doi/pdf/10.1021/acs.orglett.8b02371</a>
- 19. Kattamuri, Padmanabha V.; Yin, Jun; Siriwongsup, Surached; Kwon, Doo-Hyun; Ess, Daniel H.\*; Li, Qun; Li, Guigen\*; Yousufuddin, Muhammed; Richardson, Paul F.; Sutton, Scott C. and Kürti, László\*. "Practical Singly and Doubly Electrophilic Aminating Agents: A New, More Sustainable Platform for Carbon-Nitrogen Bond-Formation." J. Am. Chem. Soc. 2017, 139, 11184-11196. This article was featured in C&EN News: "Arylamines made easy", <a href="http://cen.acs.org/articles/95/i28/Arylamines-made-easy.html">http://cen.acs.org/articles/95/i28/Arylamines-made-easy.html</a> and Rice News: "Rice scientists simplify the incorporation of nitrogen into molecules", <a href="http://news.rice.edu/2017/07/12/rice-scientists-simplify-the-incorporation-of-nitrogen-into-molecules/">http://news.rice.edu/2017/07/12/rice-scientists-simplify-the-incorporation-of-nitrogen-into-molecules/</a>
- Ma, Zhiwei; Zhou, Zhe and Kürti, László.\* "Direct and Stereospecific Synthesis of N-H and N-Alkyl Aziridines from Unactivated Olefins Using Hydroxylamine O-Sulfonic Acids." Angew. Chem. Int. Ed. 2017, 56, 9986-9890. https://doi.org/10.1002/anie.201705530; This article was featured in Rice News: "Greener molecular intermediates may drug design", http://news.rice.edu/2017/07/05/greener-molecular-intermediates-may-aiddrug-design/
- 17. Zhou, Zhe; Ma, Zhiwei; Behnke, Nicole Erin; Gao, Hongyin and **Kürti, László.**\* "Non-Deprotonative Primary and Secondary Amination of (Hetero)Arylmetals." *J. Am. Chem.* Soc. **2017**, *139*, 115-118. http://pubs.acs.org/doi/pdf/10.1021/jacs.6b12712
- 16. Gao, Hongyin; Zhou, Zhe; Kwon, Doo-Hyun; Coombs, James; Jones, Stevens; Behnke, Nicole Erin; Ess, Daniel H.\* and Kürti, László.\* "Rapid Heteroatom-Transfer to Arylmetals Utilizing Multifunctional Reagents Scaffolds." Nat. Chem. 2017, 9, 681-688. <a href="http://www.nature.com/nchem/journal/vaop/ncurrent/full/nchem.2672.html">http://www.nature.com/nchem/journal/vaop/ncurrent/full/nchem.2672.html</a>; This article was featured in C&EN News: "Teaching Aryl Grignards New Tricks", <a href="http://cen.acs.org/articles/94/i48/Teaching-aryl-">http://cen.acs.org/articles/94/i48/Teaching-aryl-</a>

- <u>Grignards-new-synthetic.html</u> and *Rice News*: "Pine product offers a fresh take on fine chemical synthesis", http://news.rice.edu/2016/11/28/pine-product-offers-fresh-take-on-fine-chemical-synthesis/
- 15. Mahesh P. Paudyal, Adeniyi Michael Adebesin, Scott R. Burt, Daniel H. Ess, Zhiwei Ma, **László Kürti**, John R. Falck\*. "Dirhodium-catalyzed C-H arene amination using hydroxylamines." *SCIENCE* **2016**, Vol 353, no 6304, p 1144-1147. DOI: 10.1126/science.aaf8713; This article was featured in *SYNFACTS* **2016**, *12*(12), 1235. <a href="https://www.thieme-connect.com/products/ejournals/abstract/">https://www.thieme-connect.com/products/ejournals/abstract/</a> 10.1055/s-0036-1589663 as well as in *Rice News*: "Chemists make strides to simplify drug design and synthesis", <a href="http://news.rice.edu/2016/09/12/chemists-make-strides-to-simplify-drug-design-and-synthesis-2/">http://news.rice.edu/2016/09/12/chemists-make-strides-to-simplify-drug-design-and-synthesis-2/</a>
- Wang, Jin-Zheng; Zhou, Jin; Xu, Chang; Sun, Hongbin-, Kürti, László\*, and Xu, Qing-Long-. "Symmetry in Cascade Chirality-Transfer Processes: A Catalytic Atroposelective Direct Arylation Approach to BINOL Derivatives." J. Am. Chem. Soc. 2016, 138, 5202-5205. http://pubs.acs.org/doi/pdf/10.1021/jacs.6b01458
- 13. Gao, Hongyin; Xu, Qing-Long; Keene, Craig; Yousufuddin, Muhammed; Ess, Daniel H. and **Kürti, László**\*. "Practical Organocatalytic Synthesis of Functionalized Non-C<sub>2</sub>-Symmetrical Atropisomeric Biaryls." *Angew. Chem. Int. Ed.* **2016**, *55*, 566-571. (*Hot Paper*; <a href="http://onlinelibrary.wiley.com/doi/10.1002/anie.201508419/pdf">http://onlinelibrary.wiley.com/doi/10.1002/anie.201508419/pdf</a>); This article was featured in *Rice News*: <a href="http://news.rice.edu/2015/11/24/chemical-design-made-easier/">http://news.rice.edu/2015/11/24/chemical-design-made-easier/</a> and *C&EN News*: "Functionalized Biaryls by Organocatalysis": <a href="http://cen.acs.org/articles/93/i48/Functionalized-Biaryls-Organocatalysis.html">http://cen.acs.org/articles/93/i48/Functionalized-Biaryls-Organocatalysis.html</a>
- Breitbach, Zachary S.; Lim, Yeeun, Xu, Qing-Long; Kürti, László; Armstrong, Daniel W\* and Breitbach, Zachary S. "Enantiomeric Separations of α-Aryl ketones with Cyclofructan Chiral Stationary Phases via High-Performance Liquid Chromatography and Supercritical Fluid Chromatography." J. of Chromatography A 2016, 1427, 45-54. http://www.sciencedirect.com/science/article/pii/S0021967315017136
- 11. **Kürti, László.** "Streamlining Amine Synthesis" A Perspective. *SCIENCE* **2015**, Vol 348, no 6237, p864-865. DOI:10.1126/science.aab2812
- Gao, Hongyin; Xu, Qing-Long; Keene, Craig and Kürti, László\*. "Scalable, Transition-Metal-Free Direct Oxime O-Arylation: Rapid Access to O-arylhydroxylamines and Substituted Benzo[b]furans." Chemistry – A European Journal 2014, 20, 8883-8887. http://onlinelibrary.wiley.com/doi/10.1002/chem.201403519/pdf
- 9. Wood, Ross M.; Patel, Darshan C.; Lim, Yeeun, Breitbach, Zachary S.; Gao, Hongyin; Keene, Craig; Li, Gongqiang; **Kürti, László** and Armstrong, Daniel W.\* "Enantiomeric Separation of Biaryl Atropisomers Using Cyclofructan Based Chiral Stationary Phases." *J. of Chromatography A* **2014**, *1357*, 172-181. <a href="http://www.sciencedirect.com/science/article/pii/S0021967314006700#">http://www.sciencedirect.com/science/article/pii/S0021967314006700#</a>
- 8. Frink, Lillian A.; Khan, Muhammad, A; **Kürti, László**; Falck, J.R.; Paudyal, Mahesh P.; Jat, Jawahar L. And Armstrong, Daniel W.\* "Enantiomeric Separations of N-H/N-Me Aziridines Utilizing GC and HPLC." *Chromatographia* **2014**, *77*(23), 1607-1612. <a href="http://link.springer.com/article/10.1007/s10337-014-2776-8">http://link.springer.com/article/10.1007/s10337-014-2776-8</a>
- Gao, Hongyin; Xu, Qing-Long; Ess, Daniel H. and Kürti, László\*. "Transition-Metal-Free, Low-Temperature Intramolecular Amination of Aromatic C-H Bonds: Rapid Synthesis of Fused Heterocycles." Angew. Chem. Int. Ed. 2014, 53, 2701-2705. (Hot Paper; http://onlinelibrary.wiley.com/doi/10.1002/anie.201309973/pdf; This article was featured in SYNFACTS 2014, 10(4), 0351. https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0033-1341004
- 6. Jat, Jawahar L.; Paudyal, Mahesh P.; Gao, Hongyin; Xu, Qing-Long; Yousufuddin, Muhammed.; Devarajan, Deepa; Ess, Daniel H\*.; Kürti, László\* and Falck, J.R.\* "Direct and Stereospecific Synthesis of Unprotected N-H and N-Me Aziridines from Olefins." SCIENCE 2014, Vol 343, no 6166, p 61-65. DOI:10.1126/science.1245727; This article was featured in C&EN News on Jan 6th, 2014; C&EN Vol 92, Issue 1, p. 20-21 and in CHEMISTRY WORLD on Jan 9th, 2014; Title: "Simple route to add nitrogen to drugs". It was highlighted as a SCIENCE Perspective. SCIENCE, 434, 33 (2014) in NATURE CHEMISTRY under the title "Protection not included" (Vol. 6, March 2014), Angew. Chem. Int. Ed.March 2014 "A Scalable Rhodium-Catalyzed Intermolecular Aziridination Reaction" and also in the blog "In the Pipeline" under the title "Easy Aziridines".
- 5. Xu, Qing-Long; Gao, Hongyin; Ess, Daniel H. and **Kürti, László\***. "Aerobic, Transition-Metal-Free, Direct and Regiospecific Mono-α-Arylation of Ketones: Synthetic Studies and Mechanism by DFT Calculations." *J. Am. Chem. Soc.* **2013**, *135*, 14048-14051. http://pubs.acs.org/doi/pdf/10.1021/ja4074563
- Keene, Craig and Kürti, László\*. "Regiospecific Synthesis of Novel Cyclic Nitrostyrenes and 3-Substituted-2-Nitronaphthalenes." Synthesis 2013, 45(13), 1719-1729. DOI: 10.1055/s-0033-1338867; This is a "Feature Article", Special Issue Dedicated to the 60<sup>th</sup> Birthday of Professor Scott Denmark (Jul-Aug 2013).

- Gong-Qiang, Li; Gao, Hongyin; Keene, Craig; Devonas, Michael; Ess, Daniel H. and Kürti, László\*. "Organocatalytic Aryl-Aryl Bond-Formation: An Atroposelective [3,3]-Rearrangement Approach to BINAM Derivatrives." J. Am. Chem. Soc. 2013, 135, 7414-7417; <a href="http://pubs.acs.org/doi/pdf/10.1021/ja401709k">http://pubs.acs.org/doi/pdf/10.1021/ja401709k</a>; This article was featured in C&EN News on May 27th, 2013; C&EN Vol 91, Issue 21, page 40 as well as in SYNFACTS 2013, 9(9),1014. <a href="https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0033-1339626">https://www.thieme-connect.com/products/ejournals/abstract/10.1055/s-0033-1339626</a>
- Gao, Hongyin; Ess, D.E.; Yousufuddin, M. and Kürti, László\*. "Transition-Metal-Free Direct Arylation: Synthesis of Halogenated 2-Amino-2'-Hydroxy-1,1'-Biaryls and Mechanism by DFT Calculations." J. Am. Chem. Soc. 2013, 135, 7086-7089. <a href="http://pubs.acs.org/doi/pdf/10.1021/ja400897u">http://pubs.acs.org/doi/pdf/10.1021/ja400897u</a>; This article was featured on Cover of the May 15<sup>th</sup> 2013 issue of J. Am. Chem. Soc. (JACS). It was also featured in the May 15th, 2013 JACS Spotlights: JACS 2013, 135, 7081-7081. <a href="https://dx.doi.org/10.1021/ja404575r">dx.doi.org/10.1021/ja404575r</a> as well as in SYNFACTS 2013, 9(8), 0879. <a href="https://dx.doi.org/10.1021/ja404575r">DOI: 10.1055/s-0033-1339407</a>
- Zhu, Chen; Li, Gongqiang; Ess, Daniel H., Falck, J.R. and Kürti, László\*. "Elusive Metal-Free Primary Amination of Arylboronic Acids: Synthetic Studies and Mechanism by Density Functional Theory." J. Am. Chem. Soc. 2012, 134, 18253-18256. <a href="http://pubs.acs.org/doi/pdf/10.1021/ja309637r">http://pubs.acs.org/doi/pdf/10.1021/ja309637r</a>; This article was featured in C&EN News on November 5th, 2012, p. 31. It was also Highlighted in Angew. Chem. Int. Ed., April 2013. DOI: 10.1002/anie.201300382

## Postdoctoral, Graduate and Undergraduate Work:

- 17. **Kürti, László**; Blewett, Megan M. and Corey, E.J. "The Origin of Enantioselectivity in the Jacobsen Epoxidation of Olefins." *Org. Lett.* **2009**, *11*, 4592-4595.
- 16. Czakó, Barbara; **Kürti, László**, Mammoto, Akiko, Ingber, Donald and Corey, E.J. "Discovery of Potent and Practical Antiangiogenic Agents Inspired by Cortistatin A." *J. Am. Chem. Soc.* **2009**, *131*, 9014-9019.
- 15. **Kürti, László**; Czakó, Barbara and Corey, E.J. "A Short, Scalable Synthesis of the Carbocyclic Core of the Anti-Angiogenic Cortistatins from (+)-Estrone by B-Ring Expansion." *Org. Lett.* **2008**, *10*, 5247-5250.
- Kürti, László; Chein, Rong-Jie and Corey, E. J. "Conformational Energetics of Cationic Backbone Rearrangements in Triterpenoid Biosynthesis Provide an Insight into Enzymatic Control of Product." J. Am. Chem. Soc. 2008, 130, 9031-9036.
- Smith, Amos B., III; Kürti, László; Davulcu, Akin H.; Cho, Young-Shin; Ohmoto, Kazuyuki. "Indole Diterpene Synthetic Studies: Development of a Second Generation Synthetic Strategy for (+)-Nodulisporic Acids A and B." J. Org. Chem. 2007, 72, 4611-4620.
- Smith, Amos B., III; Davulcu, Akin H.; Cho, Young Shin; Kürti, László; Ishiyama, Haruaki. "Indole Diterpene Synthetic Studies. Total Synthesis of (+)-Nodulisporic Acid F and Construction of the Heptacyclic Cores of (+)-Nodulisporic Acids A and B and (-)-Nodulisporic Acid D." J. Org. Chem. 2007, 72, 4596-4610.
- 11. Smith, Amos B., III; **Kürti, László**; Davulcu, Akin H.; Cho, Young-Shin. "Development of a Scalable Synthesis of a Common Eastern Tricyclic Lactone for Construction of the Nodulisporic Acids." *Org. Process Res. Dev.* **2007**, *11*, 19-24.
- Smith, Amos B., III; Kürti, László; Davulcu, Akin H. "A New Modular Indole Synthesis. Construction of the Highly Strained CDEF Parent Tetracycle of Nodulisporic Acids A and B." Org. Lett. 2006, 8, 2167-2170.
- 9. Smith, Amos B., III; Davulcu, Akin H.; **Kürti, László**. "Indole Diterpenoid Synthetic Studies. Construction of the Heptacyclic Core of (-)-Nodulisporic Acid D." *Org. Lett.* **2006**, *8*, 1669-1672.
- 8. Smith, Amos B., III; Davulcu, Akin H.; **Kürti, László**. "Indole Diterpenoid Synthetic Studies. The Total Synthesis of (+)-Nodulisporic Acid F." *Org. Lett.* **2006**, *8*, 1665-1668.
- Kürti, László; Papagiannopoulou, Dioni; Papadopoulos, Minas; Pirmettis, Ioannis; Raptopoulou, Catherine P.; Terzis, Aris; Chiotellis, Efstratios; Harmata, Michael; Kuntz, Robert R.; Pandurangi, Raghoottama S. "Synthesis and Characterization of Novel 99gTc(V) and Re(V) Complexes with Water-Soluble Tetraaza Diamido Dipyridino Ligands: Single-Crystal X-ray Structural Investigations of Mono- and Dinuclear Complexes." *Inorg. Chem.* 2003, 42, 2960-2967.
- Harmata, Michael; Bohnert, Gary; Kürti, László; Barnes, Charles L. "Intramolecular 4+3 cycloadditions. A cyclohexenyl cation, its halogenated congener and a quasi-Favorskii rearrangement." *Tetrahedron Lett.* 2002, 43, 2347-2349.
- Harmata, Michael; Barnes, Charles L.; Brackley, James; Bohnert, Gary; Kirchhoefer, Patrick; Kürti, László; Rashatasakhon, Paitoon. "Generation of Cyclopentadienones from 2-Bromocyclopentenones." J. Org. Chem. 2001, 66, 5232-5236.

#### **PUBLICATIONS**

- 4. Juhász, László; **Kürti, László**; Antus, Sándor. "Simple Synthesis of Benzofuranoid Neolignans from *Myristica fragrans.*" *J. Nat. Prod.* **2000**, *63*, 866-870.
- 3. **Kürti, László**; Szilágyi, László; Antus, Sándor; Nógrádi, Mihály. "Oxidation of 2-methoxyphenols with a hypervalent iodine reagent. Improved synthesis of asatone and demethoxyasatone." *Eur. J. Org. Chem.* **1999**, *10*, 2579-2581.
- 2. **Kürti, László**; Herczegh, Pál; Visy, Júlia; Simonyi, Miklós; Antus, Sándor; Pelter, Andrew. "New insights into the mechanism of phenolic oxidation with phenyliodonium(III) reagents." *J. Chem. Soc., Perkin Trans. 1* **1999**, *4*, 379-380.
- 1. Harmata, Michael; Shao, Lixin; **Kürti, László**; Abeywardane, Asitha. "[4+3] Cycloaddition reactions of halogen-substituted cyclohexenyl oxyallylic cations." *Tetrahedron Lett.* **1999**, *40*, 1075-1078.

#### **TEXTBOOKS AND REFERENCE BOOKS**

- Corey, E.J. and Kürti, László Enantioselective Chemical Synthesis: Methods, Logic and Practice, Direct Book Publishing, LLC, Dallas, 2010. (Now owned, marketed & sold by ELSEVIER SCIENCE/Academic Press)
- Corey, E.J., Czakó, Barbara and Kürti, László Molecules and Medicine, John Wiley and Sons Inc., New York, 2007. [Received over 241 citations as of January 20, 2023.]
- Kürti, László and Czakó, Barbara Strategic Applications of Named Reactions in Organic Synthesis,
  Academic Press/Elsevier Science: Amsterdam 2005. Foreword by Professor E.J. Corey and Introduction by
  Professor K.C. Nicolaou. [Received over 1328 citations as of January 20, 2023.]

#### PATENTS FROM INDEPENDENT WORK

- "Amination and Hydroxylation of Arylmetal Compounds." Gao, Hongyin; Kürti, László and Zhou, Zhe. US Patent No. 10,494,328.
- "Preparation of secondary amines with electrophilic *N*-linchpin reagents." Kattamuri, Padmanabha Venkatesh and **Kürti, László** (Provisional patent application filed on 5/26/2017. RICE.P0020US.P1).
- "Transition Metal Free Methods of Synthesis of Biaryl Compounds." Gao, Hongyin and Kürti, László. (US Provisional patent filed on 11/9/2015 by Rice University. Now Converted: PCT/US2016/061628).
- "Direct C-H Amination and Aza-Annulation." Falck, John R; Kürti, László and Paudyal, Mahesh P. (US Provisional patent filed on 10/05/2015 jointly by Rice University and UT Southwestern Medical Center. Now Converted: PCT 16/316,692).
- "Biaryl Compounds as Antimicrobial and Chemotherapeutic Agents." Inventors: Cannon, Carolyn L.; Gao, Hongyin; Kürti, László; Shah, Kush Nimish and Shah, Parth Nimish. (US Provisional patent filed on 9/16/2015 jointly by Rice University and Texas A&M University. Now Converted: PCT/US2016/061607).
- "Direct Stereospecific Synthesis of Unprotected Aziridines from Olefins." Ess, Daniel H.; Falck, John R; Jat, Jawahar, Kürti, László and Paudyal, Mahesh P. (US Provisional patent filed on 01/02/2014 jointly by Brigham Young University and University of Texas Southwestern Medical Center. Now Converted: PCT/US2015/010076).

## **INVITED LECTURES**

- 219. **3<sup>rd</sup> Winter In-Person Organic Symposium (WIPOS 2023)** Honolulu, HI, December 18-21, 2023 (Chair of the Organizing Committee)
- 218. ICOC 2023 (International Conference on Organometallics and Catalysis) Goa, India, October 30-November 2, 2023 (Organizer: Professor Debabrata Maiti)
- 217. **23**<sup>rd</sup> International Conference on Organic Synthesis (23-ICOS) Shanghai, China, October 15-20, 2023 (Organized jointly by Shanghai Institute of Organic Chemistry, CAS & Shanghai Tech University; Professors Dawei Ma and Wenjun Tang)
- 216. **New Frontiers in Organic Chemistry** Heraklion, Crete/Greece, September 7-12, 2023 (Organizer: Professors Ilan Marek and Michael Meijler)

- 215. **Liebig Lectureship at Justus Liebig University, Institute of Organic Chemistry** Giessen, Germany, July 8-22, 2023 (Hosts: Prof. Dr. Peter Schreiner and Dr. Christopher Topp)
- 214. University of Georgia Athens, GA, April 20, 2023 (Host: Professor Christopher Newton)
- 213. **Emory University** Atlanta, GA, April 18, 2023 (Host: Professor Mingji Dai)
- 212. **2<sup>nd</sup> Winter In-Person Organic Symposium (WIPOS 2022)** Honolulu, HI, December 19-22, 2022 (Chair of the Organizing Committee)
- 211. **18<sup>th</sup> Brazilian Meeting on Organic Synthesis (BMOS 2022)** Tiradentes, Minas Gerais, Brazil, October 17-21, 2022 (Organizer: Professor Eufrânio N. da Silva Júnior)
- 210. University of Athens Athens, Greece, September 8, 2022 (Host: Professor Christophoros Kokotos)
- 209. 4<sup>th</sup> International ICBM (at the Interface of Chemistry, Biology and Medicine) Symposium @ IMBB FORTH Institute Patras/Greece, September 2-7, 2022 (Organizers: Christos Gatsogiannis, Mike Kokkinidis, Athanassios Giannis & Ilan Marek).
- 208. ACS Fall National Meeting in Chicago Symposium on the Advances in the Synthesis & Applications of Strained Ring Compounds Chicago, IL, August 20, 2022 (Symposium Organizers: Profs. Mark Levin and Zachary Wickens)
- 207. **Chirality 2022** Chicago, Illinois, July 17–20, 2022 (also Member of the Organizing Committee)
- 206. **47**th National Organic Symposium (2021 NOS) Plenary Speaker UCSD Campus, La Jolla, CA, June 26–June 30, 2022 (Organizers: Dr. Angie R. Angeles of Gilead Sciences and Prof. Emmanuel Theodorakis of UC San Diego)
- 205. **PHARMARON**, Inc China & USA, June 29, 2022 (Host: Dr. Jianmin Fu This was a fully virtual lecture)
- 204. Ariel University Ari'el, the West Bank, Israel, June 22, 2022 (Host: Prof. Dr. Alex Szpilman)
- 203. **Tel-Aviv University** Tel-Aviv, Israel, June 19, 2022 (Hosts: Profs. Dr. Micha Fridman & Doron Shabat)
- 202. **University of Bonn** Bonn, Germany, June 17, 2022 (Host: Prof. Dr. Christa E. Müller)
- 201. **Justus Liebig University, Institute of Organic Chemistry** Giessen, Germany, June 15, 2022 (Host: Prof. Dr. Peter Schreiner & Dr. Urs Gellrich)
- 200. PACIFICHEM 2021 New Aspects on Organocatalysts (Invited Speaker) Honolulu, HI, December 20, 2021 (Organizing Committee Chair: Professor Masahiro Terada This was a fully virtual symposium.)
- 199. **PACIFICHEM 2021 Recent Trends in Amination Chemistry** (Symposium Organizer and Committee Chair This was a fully virtual symposium.) Honolulu, HI, December 19, 2021
- 198. 1st Winter In-Person Organic Symposium (WIPOS 2021) Honolulu, HI, December 16-18, 2021 (Chair of the Organizing Committee)
- 197. University of Sao Paolo (Faculdade de Ciências Farmacêuticas de Ribeirão Preto USP) Ribeirão Preto/SP, Brazil, September 20, 2021 (Host: Professor Flavio da Silva Emery A fully virtual seminar.)
- 196. Brigham Young University (BYU) Provo, UT, June 30, 2021 (Host: Prof. Daniel H. Ess)
- 195. Brandeis University Newton, MA, June 23, 2021 (Host: Prof. Hao Xu)
- 194. **Indian Institute of Technology (IIT) Guwahati** Guwahati, India, April 8, 2021 (Host: Professor Subhas Pan A fully virtual seminar)
- 193. **New Approaches in Synthesis Optimization Symposium** Munich, Germany, November 24, 2020 (Host: Dr. Joseph Eiblmaier of InfoChem A fully virtual seminar.)
- 192. **Bristol-Mysers-Squibb (BMS) Process Chemistry** Summit, NJ, September 23, 2020 (Host: Drs. Brendan Lainhart & Richard Fox This was a fully virtual seminar.)
- 191. **Genentech (Discovery Chemistry)/Roche Group** San Mateo, CA, September 8, 2020 (Host: Dr. Daniel Zell This was the very first virtual seminar and all-day visit for both Genentech scientists and myself.)
- 190. **National University of Singapore (NUS)** Singapore, January 9, 2020 (Host: Prof. Yu Zhao & Prof. Jie Wu)
- 189. **Soochow University** Suzhou, China, January 6, 2020 (Host: Prof. Chen Zhu and Prof. Peter Pan Department of Chem. Eng. & Mat. Sci.)
- 188. **Leibniz University Hannover** Hannover, Germany, December 12, 2019 (Host: Profs. Dr. Oliver Plettenburg & Dr. M. Kalesse)
- 187. **Technical University of Braunschweig** Braunschweig, Germany, December 11, 2019 (Host: Prof. Dr. Daniel B. Werz)
- 186. **Technical University of Dresden** Dresden, Germany, December 9, 2019 (Host: Prof. Dr. Hans-Joachim Knölker)
- 185. **Gilead Sciences (Process Chemistry)** Foster City, CA, November 14, 2019 (Host: Dr. Nathaniel Kadunce)
- 184. **3rd Symposium on Chemistry, Biology and Medicine @ University of Patras** Patras, Greece, September 21-26, 2019 (Organizers: Professors Athanassios Giannis, Ilan Marek and Manolis Fousteris)
- 183. **EFMC ASMC'19: 8<sup>th</sup> International Symposium on Advances in Synthetic and Medicinal Chemistry** Athens, Greece, September 1-5, 2019 (Organizers: Professor Varinder Aggarwal & Dr. Spiros Liras)
- 182. Hungarian Chemical Society Sanofi/Chinoin, Budapest, Hungary June 27, 2019 (Host: Dr. Ervin Vajda)

- 181. **8**<sup>th</sup> **Heron Island Conference –** Ayers Rock Resort, NT, Australia, June 16-22, 2019 (Organizers: Profs. Craig Williams and Curt Wentrup)
- 180. **TexSyn III –** Baylor University, Waco, TX May 24, 2019 (Organizers: Profs. John L. Wood and Daniel Romo)
- 179. 2019 International Symposium on Resource Chemistry (ISRC 2019) Shanghai, China, May 14–16, 2019 (Organized jointly by the International Joint Laboratory of Resource Chemistry between Shanghai Normal University, National University of Singapore and Princeton University)
- 178. Shandong University Jinan, China, May 13, 2019 (Host: Prof. Hongyin Gao)
- 177. Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences Fuzhou, China, May 9, 2019 (Host: Prof. Hongli Bao)
- 176. **Cornell University –** Ithaca, New York, April 25, 2019 (Host: Prof. Song Lin)
- 175. National ACS Meeting Division of Catalysis Science and Technology: Frontiers in Catalysis for Energy & Sustainability Orlando, FL, April 2, 2019 (Organizer: Dr. Enda Bergin)
- 174. **Birthday Symposium of Prof. Dieter Schinzer –** University of Magdeburg, Magdeburg, Germany, March 27-30, 2019
- 173. **Hebrew University of Jerusalem –** Jerusalem, Israel, March 14, 2019 (Host: Prof. Ahmad Massarwa)
- 172. Tel Aviv University Tel Aviv, Israel, March 13, 2019 (Host: Prof. Micha Fridman)
- 171. Ben Gurion University Beer Sheva, Israel, March 11, 2019 (Host: Prof. Doron Pappo)
- 170. **Technion**, Israel Institute of Technology Haifa, Israel, March 10, 2019 (Host: Prof. Ilan Marek)
- 169. **Virginia Tech University (Highlands in Chemistry Seminar Series) –** Roanoke, Virginia, March 1, 2019 (Host: Prof. Paul Carlier)
- 168. COST Action 1407: Challenges in Organic Syntheses Inspired by Nature From Natural Product Chemistry to Drug Discovery La Laguna, Tenerife (Canary Islands), Spain, December 12-14, 2018 (Organizer: Prof. Bruno Botta)
- 167. **Aromaticity 2018 Symposium –** Cancun, Mexico, November 28-December 1, 2018 (Organizers: Profs. Gabriel Merino, Miquel Sola & Henrik Ottosson)
- 166. **3rd International Symposium of Organic Chemistry –** Guangzhou, China, November 8-9, 2018 (Prof. Keiji Mauroka, Chair of the Organizing Committee)
- 165. Purdue University Lafayette, Indiana, October 30, 2018 (Host: Prof. Mingji Dai)
- 164. **Drexel University –** Philadelphia, Pennsylvania, October 5, 2018 (Host: Prof. Dionicio Martinez Solorio)
- 163. **Temple University –** Philadelphia, Pennsylvania, October 4, 2018 (Host: Sarah E. Wengryinuk)
- 162. **2nd Symposium on Chemistry, Biology, Medicine @ University of Crete** Heraklion, Crete/Greece, September 21-25, 2018
- 161. **University of Alberta, 2018 Organic Reactions Lecture** Edmonton, Canada, September 10, 2018 (Host: Prof. Dennis Hall)
- 160. University of Calgary Calgary, Canada, September 7, 2018 (Host: Prof. Chang-Chun Ling)
- 159. 2<sup>nd</sup> International Symposium on New Molecules and Clusters @ Fudan University Shanghai, China, August 18-20, 2018
- 158. Peking University Shenzen Graduate School Shenzen, China, July 12, 2018 (Host: Prof. Yong Huang)
- 157. **Southern University of Science and Technology (SUSTech)** Shenzen, China, July 11, 2018 (Hosts: Profs. Bin Tan & Xinyuan Liu)
- 156. Wuhan University Wuhan, China, June 13-14, 2018 (Host: Prof. Wenbo/Boger Liu)
- 155. **Lanzhou University –** Lanzhou, China, June 12, 2018 (Host: Prof. Yu Peng)
- 154. **Tsinghua University –** Beijing, China, June 11, 2018 (Host: Prof. Lei Jiao)
- 153. **Peking University –** Beijing, China, June 10, 2018 (Host: Prof. Zhixiang Yu)
- 152. Jiangsu Normal University Xuzhou, China, June 8-9, 2018 (Host: Prof. Feng Shi)
- 151. **National University of Singapore Research Institute (NUSRI)** Xuzhou, China, June 7, 2018 (Host: Prof. Guo Qin Xu)
- 150. Soochow University Suzhou, China, June 6, 2018 (Host: Prof. Chen Zhu)
- 149. Wuxi Apptec Shanghai, China, June 5 2018 (Hosts: Drs. Rujian Ma & Tao Hu)
- 148. Shanghai Institute of Organic Chemistry (SIOC) Shanghai, China, June 4, 2018 (Host: Prof. Shuli You)
- 147. Roche-RSC International Symposium on Scientific Frontiers to Enable Drug Discovery @ ShanghaiTech University Shanghai, China, June 1-2, 2018 (Dr. Hong Shen, Organizing Committee)
- 146. Modern Frontiers in Medicinal Chemistry 2018 Canadian Chemistry Conference and Exhibition Edmonton, Canada, May 28, 2018 (Michael Meanwell, CSC Organizing Committee)
- 145. **Seventh European Workshop in Drug Synthesis (VII EWDSy)** University of Siena, Siena, Italy, May 20-24, 2018 (Organized by Prof. Maurizio Botta)
- 144. 2018 International Symposium on Resource Chemistry (ISRC 2018) Shanghai, China, May 11-12, 2018 (Organized jointly by the International Joint Laboratory of Resource Chemistry between Shanghai Normal University, National University of Singapore and Princeton University)
- 143. **National University of Singapore** Singapore, May 7-9, 2018 (Host: Prof. Yu Zhao)

- 142. XIV Meeting of the Mexican Academy of Organic Chemistry (AMQO 2018) (Plenary Lecturer), Merida, Mexico, March 19-23, 2018
- 141. Florida Heterocyclic Conference (FloHet) Gainesville, Florida, March 4-7, 2018
- 140. **Southwestern Research Institute (SwRI)** San Antonio, Texas, October, 2017 (Host: Drs. Varsin Archer and Shawn Blumberg)
- 139. **52**nd Mexican Chemical Congress & 36th National Mexican Chemistry Education Congress (Plenary Lecturer) Puerto Vallarta Jalisco, Mexico, September 26-29, 2017
- 138. 18th Tetrahedron Symposium Asia Edition (Keynote Speaker) Melbourne, Australia, July 23-27, 2017
- 137. Institute of Chemistry & Biomedical Sciences (ICBMS), Nanjing Univ. Nanjing, China, July 13, 2017 (Host: Prof. Guigen Li)
- 136. 18th Tetrahedron Symposium (Keynote Speaker) Budapest, Hungary, June 27-30, 2017
- 135. **Shanghai Institute of Organic Chemistry (SIOC)** Shanghai, China, May 17, 2017 (Host: Profs. Shuli You and Ang Li)
- 134. Shanghai Lilly (LCRDC) Shanghai, China, May 17, 2017 (Host: Dr. Jing Ye Zhou)
- 133. 2017 International Symposium on Resource Chemistry (ISRC 2017) Shanghai, China, May 15-16, 2017 (Organized jointly by the International Joint Laboratory of Resource Chemistry between Shanghai Normal University, National University of Singapore and Princeton University)
- University of Strasbourg, Institute of Chemistry CNRS Strasbourg, France, May 5, 2017 (Host: Prof. Michel Miesch)
- 131. **University of Leipzig** Leipzig, Germany, May 3, 2017 (Host: Prof. Kirsten Zeitler)
- 130. **Technical University of Berlin** Berlin, Germany, May 2, 2017 (Host: Prof. Martin Oestreich)
- 129. University of Magdeburg Magdeburg, Germany, April 28, 2017 (Host: Prof. Dieter Schinzer)
- 128. **University of Göttingen** Göttingen, Germany, April 27, 2017 (Host: Prof. Lutz Ackermann)
- 127. University of Münster Münster, Germany, April 26, 2017 (Host: Prof. Frank Glorius)
- 126. **Max-Planck-Institut (MPI) für Kohlenforschung** Mülheim, Germany, April 25, 2017 (Host: Prof. Benjamin List)
- 125. University of Cologne Cologne, Germany, April 24, 2017 (Host: Prof. Albrecht Berkessel)
- 124. Institute of Organic Chemistry RWTH Aachen University Aachen, Germany, April 21, 2017 (Host: Prof. Carsten Bolm)
- 123. **University of Marburg** Marburg, Germany, April 20, 2017 (Host: Prof. Eric Meggers)
- 122. **ICIQ (The Institute of Chemical Research in Catalonia)** Tarragona, Spain, April 18, 2017 (Host: Profs. Julio Lloret & Antonio M. Eschavarren)
- 121. **Aalto University** Helsinki, Finland, April 13, 2017 (Host: Prof. Ari Koskinen)
- 120. **Duke University** Durham, NC, March 28, 2017 (Host: Prof. Jennifer Roizen)
- 119. North Carolina State University (NCSU) Raleigh, NC, March 27, 2017 (Host: Prof. Vincent Lindsay)
- 118. **Merck Research Laboratories** (Process Chemistry) Rahway, NJ, March 16, 2017 (Host: Dr. Tamás Benkovics)
- 117. **AbbVie** (Medicinal Chemistry) Chicago, IL, February 24, 2017 (Host: Dr. Chris Marvin)
- 116. **Emory University** Atlanta, GA, February 15, 2017 (Host: Prof. Albert Padwa)
- 115. **A\*Star-ICES (Institute of Chemical and Engineering Sciences at the Biopolis)** Singapore, January 11, 2017 (Host: Prof. Lim Yee Hwee)
- 114. National University of Singapore Singapore, January 10, 2017 (Host: Prof. Yu Zhao)
- 113. Nanyang Technological University Singapore, January 9, 2017 (Host: Prof. Choon-Hong Tan)
- 112. Nanjing Tech University Nanjing, China, December 14, 2016 (Host: Prof. Teck-Peng Loh)
- 111. Texas State University San Marcos, TX, November 21, 2016 (Host: Prof. Alexander V. Kornienko)
- 110. The 3<sup>rd</sup> International Symposium on Natural Product Synthesis and Innovative Process Methods (NPSPM) for Drug Manufacture Peking University, Beijing, China, October 14-16, 2016 (Organizer & Host: Prof. Zhi-Xiang Yu)
- 109. University of Arizona Tucson, AZ, September 1, 2016 (Host: Prof. Jon Njardarson)
- 108. University of New Mexico Albuquerque, NM, August 26, 2016 (Host: Prof. Wei Wang)
- 107. Nanjing University Nanjing, China, July 21, 2016 (Host: Prof. Guigen Li)
- 106. Eötvös Lóránd University (ELTE) Budapest, Hungary, July 18, 2016 (Host: Prof. Zoltán Novák)
- 105. **23**<sup>rd</sup> **IUPAC Conference on Physical Organic Chemistry** Sydney, Australia, July 3-8, 2016 (Organizer: Prof. Jason Harper)
- 104. **Australian National University (ANU)** Canberra, Australia, July 1, 2016 (Host: Prof. Michael Sherburn)
- 103. Monash University Melbourne, Australia, June 29, 2016 (Host: Prof. David Lupton)
- 102. ACS Green Chemistry & Engineering Conference Portland, OR, June 14-16, 2016 (Organizer: Dr. Daniel Richter, Pfizer)
- 101. **Bristol-Myers-Squibb (BMS) Symposium at the University of Michigan** Ann Arbor, MI, May 31, 2016 (Host: Professor Pavel Nagorny)
- 100. Oregon State University Corvallis, OR, May 12, 2016 (Invitation by Professor Paul Ha-Yeon Cheong)

- 99. **International Symposium on Resource Chemistry** Shanghai, China, January 14-15, 2016 (Organized jointly by the International Joint Laboratory of Resource Chemistry between Shanghai Normal University, National University of Singapore and Princeton University)
- 98. **PACIFICHEM Organocatalysis Symposium** Honolulu, HI, December 15-19, 2015 (Organizers: Profs. M. Terada & J. Antilla)
- 97. **PACIFICHEM** Applications of C-H Functionalization Symposium Honolulu, HI, December 15-19, 2015 (Organizers: Profs. P. Vachal, Zhang-Jie Shi, Chao-Jun Li, Huw Davies, Kenichiro Itami, Helen Lebel)
- PACIFICHEM Innovative Strategies for the Synthesis of Nitrogen Heterocycles Symposium Honolulu, HI, December 15-19, 2015 (Organizers: Profs. R. Danheiser & T. Fukuyama)
- 95. Colorado State University Fort Collins, CO, October 5, 2015 (Host: Prof. Tomislav Rovis)
- 94. 50th Anniversary Symposium of the Department of Chemistry at the Center for Advanced Studies and Research of the National Polytechnic Institute (Cinvestav) Mexico City, Mexico, September 28-29, 2015 (Host: Prof. J.A.L. Montelongo)
- 93. **10**<sup>th</sup> International Congress of Pharmaceutical Sciences (CIFARP; http://www.cifarp.com.br) Ribeirão Preto, Brazil, September 5-9, 2015 (Host: Prof. Flavio da Silva Emery)
- 92. Wuxi Apptec Shanghai, China, August 6, 2015 (Host: Drs. Rujian Ma & Qiang Han)
- 91. Shanghai Jiao-Tong University Shanghai, China, August 5, 2015 (Host: Prof. Wanbin Zhang)
- 90. **Wuxi Apptec** Wuhan, China, August 4, 2015 (Host: Dr. Rongfeng Gao)
- 89. Nanjing University Nanjing, China, August 3, 2015 (Host: Prof. Guigen Li)
- 88. **Shanghai Normal University** Shanghai, China, July 30, 2015 (Host: Prof. Hexing Li)
- 87. Heterocyclic Chemistry Gordon Conference Salve Regina University, RI, June 21-25, 2015
- 86. Blue Danube Conference on Heterocyclic Chemistry Balatonalmádi, Hungary, June 14-18, 2015
- 85. **Hungarian Academy of Sciences, Organic Chemistry Research Institute** Budapest, Hungary, June 12, 2015 (Host: Prof. Tibor Soós)
- 84. **Paul Walden 9<sup>th</sup> Symposium** Riga, Latvia, May 21-22, 2015 (Host: Prof. Peteris Trapencieris)
- 83. University of Pennsylvania Philadelphia, PA, May 13, 2015 (Student-invited seminar)
- 82. Wayne State University Detroit, MI, April 7, 2015 (Host: Prof. Ladislau Kovari)
- 81. Anatolian Conference on Synthetic Organic Chemistry Antalya, Turkey, March 16-19, 2015
- 80. University of South Florida Tampa, FL, February 15, 2015 (Host: Prof. Peter Zhang)
- 79. **Texas A&M University** College Station, TX, February 9-10, 2015 (Host: Prof. Kevin Burgess)
- 78. Rice University Houston, TX, December 4, 2014 (Host: Prof. K.C. Nicolaou)
- 77. **Kitasato University JSPS Fellowship Stop#15** Tokyo, Japan, December 1, 2014 (Prof. Toshiaki Sunazuka)
- Gakushuin University JSPS Fellowship Stop#14 Tokyo, Japan, November 26, 2014 (Prof. Takahiko Akiyama)
- 75. **Tohuku University JSPS Fellowship Stop#13** Sendai, Japan, November 25, 2014 (Prof. Yujiro Hayashi)
- 74. Advanced Molecular Transformations by Organocatalysts (AMTO) & 7<sup>th</sup> Symposium on Organocatalysis The University of Tokyo, Tokyo, Japan, November 21-22, 2014 (Organizer: Prof. Masahiro Terada)
- 73. **Tokyo University of Agriculture and Technology (TUAT) JSPS Fellowship Stop#12** Tokyo, Japan, November 20, 2014 (Prof. Kazuo Nagasawa)
- 72. **Tokyo University of Science (TUS) JSPS Fellowship Stop#11** Tokyo, Japan, November 19, 2014 (Prof. Isamu Shiina)
- 71. **Tokyo University JSPS Fellowship Stop#10** Tokyo, Japan, November 18, 2014 (Prof. Masayuki Inoue)
- 70. Kyushu University JSPS Fellowship Stop#9 Kyusyu, Japan, November 17, 2014 (Prof. Toru Oishi)
- 69. **Ono Pharmaceutical Co., Ltd JSPS Fellowship Stop#7** Osaka, Japan, November 13, 2014 (Dr. Toru Maruvama)
- 68. Kyoto University JSPS Fellowship Stop#6 Kyoto, Japan, November 12, 2014 (Prof. Keiji Maruoka)
- 67. Osaka Univeristy JSPS Fellowship Stop #5 Osaka, Japan, November 11, 2014 (Prof. Naoto Chatani)
- 66. **Nagoya University JSPS Fellowship Stop#4** Nagoya, Japan, November 10, 2014 (Prof. Kazuaki Ishihara)
- 65. **Takasago International Corporation JSPS Fellowship Stop#3** Tokyo, Japan, November 6, 2014 (Dr. Mitsuhiko Fujiwara)
- 64. **Tokyo Institute of Technology (TIT) JSPS Fellowship Stop#2** November 5, 2014 (Prof. Nobuharu Iwasawa)
- 63. **Keio University JSPS Fellowship Stop#1** Tokyo, Japan, November 4, 2014 (Host: Prof. Noritaka Chida)
- 62. University of Washington Seattle, WA, October 22, 2014 (Host: Prof. Gojko Lalic)
- 61. Amgen Young Investigators' Symposium Thousand Oaks, CA, October 15, 2014
- 60. Brigham Young University (BYU) Provo, UT, September 26, 2014 (Host: Prof. Daniel H. Ess)

- 59. **KAUST Catalysis Center (KCC)**, Saudi Arabia, Sept 7-8, 2014 (Host: Profs. Jörg Eppinger & Nikos Hadjichristidis)
- 58. **European Young Investigator Symposium,** Larnaca, Cyprus, August 28-30, 2014 (Organizer: Prof. Ilan Marek)
- 57. **Academic Young Investigator Award Symposium,** San Francisco, CA, 248<sup>th</sup> ACS National Meeting, August 10, 2014
- 56. 2014 Stereochemistry Gordon Conference, Salve Regina University, RI, July 27-August 1, 2014
- 55. **Texas A&M University** College Station, TX, July 17, 2014 (Host: Prof. Karen Wooley)
- 54. **Eli Lilly and Company ACC Summer Seminar Series** Indianapolis, IN, July 7-8, 2014 (Host: Dr. Matthew A. Schiffler)
- 53. Korean Advanced Institute of Science & Technology (KAIST) Daejeon, South Korea, June 5, 2014 (Prof. Sukbok Chang)
- 52. Hanyang University Seoul, South Korea, June 4, 2014 (Host: Prof. Cheon-Gyu Cho)
- 51. **Roche Shanghai** Shanghai, China, May 30, 2014 (Host: Dr. Yimin Hu)
- 50. **Novartis Shanghai** Shanghai, China, May 29, 2014 (Host: Dr. Haibing Guo)
- 49. Hengrui Medicine, Co., Ltd Shanghai, China, May 29, 2014 (Host: Dr. Biao Lu)
- 48. **Shanghai Normal University** Shanghai, China, May 28, 2014 (Host: Prof. Hexing Li)
- Shanghai Institute of Organic Chemistry (SIOC) Shanghai, China, May 27, 2014 (Host: Prof. Shuli You)
- 46. Fudan University Shanghai, China, May 26, 2014 (Host: Prof. Junli Hou)
- 45. Shanghai Institute of Materia Medica (SIMM), Shanghai, China, May 26, 2014 (Host: Prof. Yang Ye)
- 44. **The 2014 International Symposium on Organic Synthesis and Drug Development** Xuzhou, China, May 24 25, 2014 (Host: Prof. Guigen Li)
- 43. Nankai University Tianjin, China, May 22, 2014 (Host: Prof. Zhen Xi)
- 42. Tianjin University Tianjin, China, May 21, 2014 (Host: Prof. Yunfei Du)
- 41. National Institute of Biological Science (NIBS) Beijing, China, May 20, 2014 (Host: Dr. Xiangbing Qi)
- 40. **Peking University** Beijing, China, May 19, 2014 (Host: Prof. Tuoping Luo)
- 39. Janssen Research & Development (J&J), San Diego, CA, May 5-6, 2014 (Host: Dr. Connor Martin)
- 38. **Gilead Sciences**, Foster City, CA, April 21, 2014 (Host: Dr. Jake Cha)
- 37. Pfizer La Jolla La Jolla, CA, April 11, 2014 (Host: Dr. Douglas Behenna)
- 36. California Institute of Technology Pasadena, CA, April 9, 2014 (Host: Prof. Brian Stoltz)
- 35. **University of California Santa Barbara (UCSB)** Santa Barbara, CA, April 7, 2014 (Host: Prof. Armen Zakarian)
- 34. The Scripps Research Institute La Jolla, CA, April 4, 2014 (Host: Prof. Phil Baran)
- 33. Advances in C-H Functionalization Symposium, Dallas, TX, 247th ACS National Meeting, March 17, 2014
- 32. University of Texas at Austin Austin, TX, February 24, 2014 (Host: Prof. Michael Krische)
- 31. **Bristol-Myers-Squibb Process Chemistry** New Brunswick, NJ, February 19-20, 2014 (Host. Dr. William Gallagher)
- 30. **School of Pharmacy, University of Wisconsin-Madison** Madison, WI, February 7, 2014 (Host: Prof. Weiping Tang)
- 29. King Abdullah University of Science and Technology/Winter Enrichment Program (WEP) Saudi Arabia, Jan 25-31, 2014
- 28. University of Pécs Pécs, Hungary, December 19, 2013 (Host: Prof. Tamás Kálai)
- 27. Vanderbilt University Nashville, TN, November 4, 2013 (Host: Prof. Gary Sulikowski)
- 26. University of Missouri-Columbia Columbia, MO, October 21, 2013 (Host: Prof. Rainer Glaser)
- 25. University of Hawaii Honolulu, HI, July 10, 2013 (Host: Prof. Marcus Tius)
- 24. Heterocyclic Chemistry Gordon Conference (Short Talk) Salve Regina University, Newport, RI, June 16-21, 2013
- 23. University of Milan Spring 2013 Lectureship in Chemistry Milan, Italy, March 11-15, 2013
- 22. University of Oklahoma Norman, OK, February 13, 2013 (Host: Prof. G.R. Addo)
- 21. Chirality 2012 Fort Worth, Texas, June 8–10, 2012 (also Member of the Organizing Committee)
- Intl. Symposium on Physical Organic Chemistry and Synthetic Materials Nankai University, Tianjin, China, July 1-3, 2011
- 19. Nanjing University Nanjing, China, June 29-30, 2011 (Host: Prof. Guigen Li)
- 18. Novartis Shanghai Shanghai, China, June 28, 2011
- 17. Shanghai Normal University Shanghai, China, June 28, 2011 (Host: Prof. Hexing Li)
- Hong Kong University of Science and Technology Hong Kong, China, June 26-27, 2011 (Host: Prof. Jianwei Sun)
- Peking University Shenzen Graduate School Shenzen, China, June 25, 2011 (Host: Prof. Zigang Li)
- 14. East China Normal University (ECNU) Shanghai, China, June 24, 2011 (Host: Prof. Junliang Zhang)

#### **INVITED LECTURES**

- 13. Fudan University Shanghai, China, June 23, 2011 (Host: Prof. Junli Hou)
- 12. **Shanghai Institute of Organic Chemistry (SIOC)** Shanghai, China, June 22, 2011 (Host: Prof. Shuli You)
- 11. **UT Arlington** November 8, 2010 (invitation by Professor Zoltan Schelly)
- 10. Angiokem Training Workshop (COST) (Rhodos, Greece, September 26–October 1, 2010)
- Third European Workshop in Drug Synthesis (III EWDSy) University of Siena, Siena, Italy, May 23– 27, 2010
- 8. **South Plains Award Banquet Keynote Speaker** Local Section, American Chemical Society, Lubbock, TX, April 16, 2010
- 7. Stony Brook University Stony Brook, NY, January 28, 2010
- 6. ETH Lausanne (EPFL) Lausanne Switzerland, January 13, 2010
- 5. **Helsinki University of Technology** December 18, 2009, Helsinki, Finland (invitation by Professor Ari Koskinen).
- 4. University of Jyvaskyla December 16, 2009, Jyvaskyla, Finland (invitation by Professor Petri Pihko).
- 3. **UT Southwestern Medical Center** Dallas, TX, December 3, 2009 (Host: Prof. Jeff DeBrabander)
- 2. **ANGIOKEM Inhibitors of Angiogenesis: design, synthesis and biological exploitation** Favignana (Egadi Islands off the coast of Sicily), Italy, October 16–18, 2009
- 1. **Natural Products Chemistry, Biology and Medicine II** ESF-COST High Level Research Conference, Acquafredda di Maratea, Italy, August 29–September 3, 2009

#### **CURRENT EXTERNAL FUNDING SOURCES**

- Robert Welch Foundation Grant: \$170,000 (PI, 2023–2025; 3 years) Fun with Chemistry An outreach
- NSF SYN: \$475,000 (\$303,515 in total direct costs, PI, 2021–2024) Harnessing the power of weak bonds
- Robert Welch Foundation Grant: \$240,000 (Total direct costs, PI, 2020–2023) New paradigms in hetero- and carbocyclic chemistry
- **NIH R35 (MIRA):** \$1,892,356 (\$1,284,000 in total direct costs, PI, 2020–2025) New catalytic methods for the rapid synthesis of *N*-unprotected chiral aziridines and amines

#### **COMPLETED EXTERNAL FUNDING SOURCES**

- ✓ Army Research Labs (ARL-Rice Cooperative Agreement) CLES-EM: Clean, Lean, and Efficient Synthesis of Energetic Materials in Sciences for Lethality and Protection and Materials Research: \$500,000 (\$340,000 in total direct costs, co-PI with Profs. Mike Wong & Naomi Halas, 2021–2022)
- ✓ Merck Sharp & Dohme Corp.: \$83,000 (\$50,000 in total direct costs, PI, 2020–2022) Catalytic asymmetric methods for the synthesis of N-H and/or N-CN aziridines
- ✓ Army Research Labs (ARL): \$250,000 (\$170,000 in total direct costs, co-PI with Prof. Mike Wong, 2020–2021) Synthesis of Kinetically Stable Polynitrogen Compounds
- ✓ **Robert Welch Foundation Grant**: \$37,500 (co-PI, 2018–2020) Fun with Chemistry: Satellite Programs; Collaboration with Dr. Kate Biberdorf at UT Austin
- ✓ NCI R01: \$410,000 (\$250K total direct costs, co-PI, 2015–2020) Collaboration with Professor Ralf Kittler at UT Southwestern Medical Center
- ✓ NIH R01: \$1,160,000 (Total direct costs, PI, 2015–2019) Synthesis and use of N-Unprotected Aziridines NCE until April 2020
- ✓ NSF CAREER AWARD: \$675,000 (PI, 2015–2020) Exploiting the Versatile N-O Bond
- ✓ Robert Welch Foundation Grant: \$270,000 (PI, 2017–2020) New Paradigms in Heterocyclic Chemistry
- ✓ NIH R01: \$27,487 (co-PI, 2017–2019) Collaboration with Dr. Choel Kim at Baylor College of Medicine
- ✓ Biotage Principal Investigator Award: \$55,000 (PI, September 2015)

#### **COMPLETED EXTERNAL FUNDING SOURCES**

- ✓ Amgen Young Investigators' Award: \$25,000 (PI, October 2014)
- ✓ Robert Welch Foundation Grant: \$225,000 (PI, June 1, 2014–May 31 2017)
- ✓ Robert Welch Foundation Grant: \$170,000 (PI, June 1, 2011–May 31 2014)
- ✓ ACS PRF Doctoral New Investigator Grant: \$100,000 (PI, January 2012–December 31, 2014)
- ✓ American Cancer Society/Simmons Cancer Center Grant: \$40,000 (PI, January 2011–December 2011)
- ✓ UT Southwestern Endowed Scholars in Biomedical Research Program: \$700,000 (PI, Sept 2010–Aug 2014)

#### **UNDERGRADUATE STUDENTS ADVISED**

- Pierre Loch-Temzelides (Junior, Fall 2022 Present Day)
- Simon Yellen (Sophomore, Summer 2022 Present Day)
- Gary Shi (Sophomore, Summer 2022 Present Day)
- Sadie Siegel (Junior, Spring 2022 Present Day) Recipient of Rice Chemistry Department's Zevi & Bertha Salsburg Memorial Fellowship for Summer Research
- Ana Victoria Serna (Sophomore, Summer 2021 Present Day) Recipient of Rice Chemistry Department's
   Zevi & Bertha Salsburg Memorial Fellowship for Summer Research [Co-author in Angew. Chem. Int. Ed. 2021]
- Pearl Fernandez (Junior, Spring 2021 Fall 2021)
- Sanjay Pandiri (Senior, Spring 2020 Present Day) Recipient of Rice Chemistry Department's Zevi & Bertha Salsburg Memorial Fellowship for Summer Research [Co-author in *Green Chemistry* 2023]
- Aaron Wyderka (Junior, Spring 2020)
- Stephen Chamness (Senior, Spring 2019 Spring 2021) Recipient of Rice Chemistry Department's Zevi & Bertha Salsburg Memorial Fellowship for Summer Research. Now a graduate student in the Department of Chemistry at the University of Michigan. [Co-author in Org. Lett. 2020]
- Colin Howman (Junior, Fall 2017)
- Jung-Woo (Peter) Park (Incoming Freshman, Summer 2017)
- Molly Hurley (Sophomore, Summer 2017 Fall 2017)
- Colm Mulvehill (Sophomore, Spring 2017 Summer 2018)
- Russell Kielawa (Sophomore, Spring 2017 Spring 2019) Recipient of Rice Chemistry Department's Zevi
   & Bertha Salsburg Memorial Fellowship. Now a graduate student in the Department of Chemistry at the University of Chicago. [Co-author in Org. Lett. 2018]
- Carlos Barrera (Junior, Fall 2016 Spring 2017) Recipient of the Pfizer AIR Fellowship to work in the Kürti lab; \$15K/year)
- Suhyeorn (Jane) Park (Senior, Summer 2016 Fall 2016)
- James Siriwongsup (Junior, Summer 2016 May 2018) Recipient of Rice Chemistry Department's Zevi & Bertha Salsburg Memorial Fellowship. Now a graduate student in the Department of Chemistry at Harvard University. [Co-author in JACS 2017, JOC 2019]
- Zoe Punske (Junior, Summer 2016 May 2018) Was an intern at Pfizer La Jolla from May- August 2017.
   Now a graduate student at Indiana University in their organic chemistry program.
- Qi (Yukki) Li (Senior, Spring 2016). Now a graduate student at UT Austin in the Department of Chemistry.
- Anna Truong (Sophomore, Spring 2016)
- Tania Lopez Silva (Senior, Summer 2015) Received Ph.D. at Rice in Jeff Hartgerink's laboratory in 2020

#### **GRADUATE STUDENTS ADVISED**

- Danny Graeff (1st Year Grad Student, joined November 2022 Present Day).
- Charlotte Randolph (1st Year Grad Student, joined November 2022 Present Day).
- Agustin Rodriguez (3<sup>rd</sup> Year Grad Student, joined November 2020 Present Day). [Co-author in *1* publication]
- Young Do Kwon (3<sup>rd</sup> Year Grad Student, joined November 2020 Present Day).
- Zachary Grimm (3<sup>rd</sup> Year Grad Student, joined November 2020 Present Day).
- **Douglas Saunders** (Grad Student, November 2018 April 2019). Took a job to support his growing family.
- Kaitlyn Lovato (Graduated in 2021, joined Fall 2016; Recipient of a 3-yr NSF Graduate Fellowship: 2017–2020). Accepted offer from Janssen Pharmaceuticals (Start date July 2021). [Co-author in 4 publications]
- **Nicole Erin Behnke** (Graduated in 2021, joined Fall 2016, Recipient of Welch-Atwell Fellowship 2016). Accepted offer from Johnson & Johnson (Start date April 2021). [Co-author in 6 publications]
- **Craig Keene** (Graduated with Ph.D. in December 2016, Recipient of Welch-Atwell Fellowship 2015). Current position: Dava Oncology, Dallas, TX, USA. [Co-author in 5 publications]

#### POSTDOCTORAL FELLOWS ADVISED

- **Dr. Anna Libman** (January 2023 Present Day) Ph.D. from Ben Gurion University of the Negev (BGU), Beer Sheva, Israel (Prof. Doron Pappo).
- **Dr. Daniel Joaquin** (July 2022 Present Day) Ph.D. from Brigham Young University (BYU), Provo, Utah (Prof. Steven Castle).
- Dr. Arghya Ghosh (January 2022 Present Day) Ph.D. from CSIR- National Chemical Laboratory, Pune, India (Prof. Akkatu T. Biju).
- Dr. Tamal Kanti Das (October 2020 January 2023) Ph.D. from CSIR- National Chemical Laboratory, Pune, India (Prof. Akkatu T. Biju). Now a Research Scientist at Calibr @ Scripps Research as of 01/09/2023. [Co-author in 2 publications]
- Dr. Jidong Zhao (September 2020 Present time) Ph.D. from Shanghai Institute of Organic Chemistry (SIOC, Prof. Yuanhong Liu). Accepted an offer from PharmaBlocks in Philadelphia and will join during the Spring 2023. [Co-author in 1 publication]
- **Dr. Juha Siitonen** (January 2019 December 2021) Recipient of Wiess teaching fellowship (Rice University) and the Fellowship of the Oskar Huttunen Foundation. Ph.D. from University of Jyväskylä (Prof. Petri Pihko). Now an Assistant Professor at Aalto University. [Co-author in 9 publications]
- **Dr. Qing-Qing Cheng** (February 2018 September 2019) Ph.D. from Nankai University (Prof. Qi-Lin Zhou) and Postdoctoral Studies at UT San Antonio (Prof. Michael P. Doyle). Now a Principal Scientist at Turning Point Therapeutics (a subsidiary of Bristol Myers-Squibb). [Co-author in 2 publications]
- **Dr. Urmibushan Bhakta** (October 2017 October 2019) Ph.D. from University of Alberta, Canada (Prof. Dennis Hall). Now a research scientist I at IntelliSyn R&D, Montreal, Canada. [Co-author in 3 publications]
- **Dr. Adám Gyömöre** (January November 2017) Recipient of a Postdoctoral Fellowship by the Rosztoczy Foundation (\$30K). Now an R&D project manager at Richter Gedeon Nyrt, Budapest, Hungary.
- **Dr. Byeong-Seon Kim** (July 2016 August 2018) Ph.D. from University of Pennsylvania (Prof. Patrick J. Walsh). Now a Teaching Assistant Professor at Gyeongsang National University (Department of Chemistry Education), Jinju, 52828, S. Korea.
- **Dr. Zhe Zhou** (February 2016 June 2020) Ph.D. from University of Hawaii (Prof. Marcus A. Tius). Now a Research Scientist at Janssen Pharmaceuticals, J&J (Start date June 29<sup>th</sup>, 2020). [Co-author in 8 publications]
- **Dr. Jun Yin** (January June 2016) Now a Group Leader at Wuxi Apptec in Shanghai, China. [Co-author in 1 publication]
- Dr. Zhiwei Ma (August 2015 December 217) Ph.D. from Brigham Young University (Prof. Steven L. Castle).
   Now a Senior Investigator at the Genomic Institute of the Novartis Foundation (GNF), San Diego, CA. [Coauthor in 3 publications]
- **Dr. Padmanabha Venkatesh Kattamuri** (September 2014 August 2019) Ph.D. from Texas Tech University (Prof. Guigen Li). Now a Principal Scientist at Arcus Biosciences. [Co-author in 5 publications]

#### POSTDOCTORAL FELLOWS ADVISED

- Dr. Hongyin Gao (February 2012 October 2016) Ph.D. from East China Normal University (ECNU, Prof. Junliang Zhang) Now a Full Professor at Shandong University (Jinan, China). [Co-author in 12 publications]
- Dr. Qing-Long Xu (September 2012 January 2014) Ph.D. from Shanghai Institute of Organic Chemistry (SIOC, Prof. Shuli You) – Now a Full Professor at China Pharmaceutical University (Nanjing, China). [Coauthor in 8 publications]
- Dr. Gongqiang Li (August 2011 February 2013) Ph.D. from Shanghai Institute of Organic Chemistry (SIOC, Prof. Shuli You) – Now Full Professor at Nanjing Tech University (Nanjing, China). [Co-author in 2 publications]

#### VISITING FOREIGN SCIENTISTS, GRADUATE STUDENTS AS WELL AS UNDERGRADUATE STUDENTS

- Takaya Nagata (July–September, 2018) 3<sup>rd</sup> Year Grad Student from Osaka University; Advisor: Prof. Satoshi Minakata
- Yi-Pin Ng (June–December, 2018) CN Yang Scholar & Undergraduate Student from NTU-Singapore. [Co-author in *Org. Biomol. Chem.* **2020**]
- Tobias Wilczek (September–November, 2018) Grad Student at the University of Cologne, Germany;
   Advisor: Dr. Martin Prechtl
- Christopher Paasch (September–November, 2018) Grad Student at the University of Cologne, Germany; Advisor: Dr. Martin Prechtl
- Dr. Martin Prechtl (February, 2019) Privatdozent at the University of Cologne, Germany
- Professor Yaojia Jiang (December, 2018 December 2019) Nanjing Tech University, Nanjing, China
- Professor Flavio Emery da Silva (July 1–30, 2019) University of Sao Paolo (USP), Ribeirao Preto, Brazil
- Manuel Carmona Pichardo (November 2019 March 2020) Grad Student at the University of Cologne, Germany; Advisor: Dr. Martin Prechtl

#### RICE CHEMISTRY DEPARTMENTAL SERVICE

- Strategic Research Directions Committee (Member, Fall 2022 Spring 2023)
- Recruiting Committee to Hire Prof. Hans Renata (with Professor KC Nicolaou)
- Departmental External Review Advisory Committee (Chair, Fall 2021-Spring 2022)
- Departmental Seminar Committee (Chair, July 2020 June 2022)
- Chemistry Graduate Studies Committee (Member, Fall 2016 Summer 2018; Co-Chair, Fall 2018 Summer 2020)
- Faculty Search Committee (Member, Fall 2015, Fall 2016 & Fall 2018)
- Departmental External Review Advisory Committee (Member, Fall 2016)
- Chemistry Graduate Admissions Committee (Member, Fall 2015, Fall 2020)

#### RICE UNIVERSITY-WIDE SERVICE

- Assistant VP for Research Security Search Committee (Chair, Spring 2023)
- Rice Research Security Program Working Group (Member, Summer 2022- Present Day)
- VPI (Vice President of Innovation) Search Committee (Member, Summer 2021-2022)
- VPR (Vice Provost for Research) Search Committee (Member, Summer 2021)
- Rice Univeristy Committee on Research (COR) (Member, July 2020-June 2021; Chair, July 2021 Present Day)
- Rice University Laboratory Safety Committee (Member, Fall 2017 March 2020; Chair, Fall 2020 2021)
- Cohen House, Faculty Club Board (Member, Fall 2016 Fall 2021)

#### SERVICE TO THE PUBLIC AND THE CHEMISTRY COMMUNITY AT LARGE

- WIPOS 2023: 3<sup>rd</sup> Winter In-Person Organic Symposium (December 18-21, 2023) Chair of the Organizing Committee
- WIPOS 2022: 2<sup>nd</sup> Winter In-Person Organic Symposium (December 19-22, 2022) Chair of the Organizing Committee
- WIPOS 2021: 1<sup>st</sup> Winter In-Person Organic Symposium (December 16-18, 2021) Chair of the Organizing Committee
- Chirality 2022 Member of the Organizing Committee
- PACIFICHEM 2021 Section #377 "Recent Trends in Amination Chemistry" Symposium (Chair, Organizing Committee, Dec 19, 2021)
- Fun with Chemistry Chemistry demonstrations are performed by my graduate students in elementary and high schools in the greater Houston area and >6,000 students are reached through these shows each year. (Faculty Sponsor; 2019 2021 along with UT Austin; Now the PI from 2023-2025, Fully funded by the Welch Foundation for 3 years)
- K.C. Nicolaou 70<sup>th</sup> Birthday Symposium Organizing Committee (Vice Chair, January October, 2016)
- Chirality 2012 Member of the Organizing Committee

#### PEER REVIEWING AND REFEREEING ACTIVITY

Books: John Wiley & Sons, Wiley VCH, Elsevier Science/Academic Press

Journals: SCIENCE, SCIENCE ADVANCES, NATURE CHEMISTRY, NATURE COMMUNICATIONS,

NATURE CATALYSIS, Journal of the American Chemical Society (JACS), Accounts of Chemical Research, Angewandte Chemie International Edition (ACIE), Chemical Science, ACS Catalysis, Advanced Synthesis & Catalysis, Chemical Communications, Chemical Science, Organic Letters, Chemistry – A European Journal, European Journal of Organic Chemistry (EurJOC), Journal of Organic Chemistry (JOC), Bioorganic and Medicinal Chemistry (BMC), Advanced Synthesis &

Catalysis

Funding Agencies:

National Science Foundation (NSF Career Panel), ACS Petroleum Research Fund (ACS-PRF),

Hungarian Academy of Sciences Grants (NKFIH), Agence Nationale de la Recherche (ANR,

France), Israel Science Foundation (ISF).