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PROFESSIONAL APPOINTMENTS

2020–Present **Professor, Hunter College, City University of New York**
2020–Present **Professor, Advanced Science Research Center, City University of New York**
2020–Present **Associate Director, NSF CCI Center for Mechanical Control of Chemistry (CMCC)**
2020–Present **Co-Founder and Chief Scientific Officer, Dultech LLC**
2016–2020 **Associate Professor, Advanced Science Research Center, City University of New York**
2016–2020 **Associate Professor, Department of Chemistry and Biochemistry, Hunter College**
2013–2016 **Assistant Professor, Department of Chemistry, University of Miami**
2013 **Visiting Research Professor, Department of Chemistry, New York University**
2010–2012 **Assistant Professor, Department of Chemistry and The Molecular Design Institute, New York University (NYU)**
2007–2010 **NIH NRSA Postdoctoral Research Fellowship in Cancer Nanotechnology, Northwestern University**
2006–2007 **Postdoctoral Researcher, Department of Chemistry, The Hebrew University of Jerusalem**
2001–2006 **Graduate Student, Department of Chemistry, University of California, Los Angeles (UCLA)**

EDUCATION

Ph. D. in Organic Chemistry, UCLA, 2006
B. A. in Chemistry, Cornell University, Ithaca, New York, 2001

AWARDS AND AFFILIATIONS

National Academy of Sciences Kavli Fellow 2016 • Royal Society of Chemistry *Chemical Society Reviews* Emerging Investigator 2016 • ***Journal of Physical Organic Chemistry*** **Award for Early Career Excellence in Physical Organic Chemistry 2015** • ACS Organic Chemistry Young Innovator 2015 • UM Provost's Research Award • *Polymer Chemistry* Emerging Investigator 2015 • ACS PMSE Young Investigator Award 2014 • Carl Storm Underrepresented Minority (CSURM) GRC Travel Fellowship (2012) • **AFOSR Young Investigator (2011–2013)** • **NSF-NSEC Outstanding Researcher** (Northwestern University, 2009) • **NIH NRSA Postdoctoral Fellowship in Cancer Nanotechnology** (2008–2010) • Lady Davis Postdoctoral Fellowship (Declined) • **NSF GK–12 Graduate Fellowship** (2005–2006) • NSF REU Fellowship (2000) • American Chemical Society Member (1999–Present) • National AAAS Member (2008–2011)

PUBLICATIONS

[62] Kwan, C.-K.; Cerullo, A. C.; Braunschweig, A. B. "Design and synthesis of mucin-inspired glycopolymers" *ChemPlusChem*, *Submitted for publication.*

[61] Bravo, F. B.; Lema, M.; Marianski, M. M.; Braunschweig, A. B. "Flexible Synthetic Carbohydrate Receptors as Inhibitors of Viral Attachment" *Biochemistry, In Press.* DOI: 10.1021/acs.biochem.0c00732

[60] Cerullo, A.; Lai, T. Y.; Allam, B; Baer, A.; Barnes, W. J. P.; Barrientos, Z; Deheyn, D. D.; Fudge, D. S.; Gould, J.; Harrington, M. J.; Holford, M.; Hung, C. S.; Jain, G.; Mayer, G.; Medina, M.; Monge-Nájera, J.; Napolitano, T.; Pales Espinosa, E.; Schmidt, S.; Thompson, E.M; Braunschweig, A. B. "Comparative animal mucomics: Inspiration for functional materials from ubiquitous and understudied biopolymers" *ACS Biomaterials Science and Engineering* **2020**, **DOI: 10.1021/acsbiomaterials.0c00713.**

[59] Nanolithography of Biointerfaces, Faraday Discussion 219. Edited, Braunschweig, A. B. Royal Society of Chemistry, London. **2020**. ISBN-13: 978-1788016766

[58] Bravo, M. F.; Palanichamy, K.; Shlain, M. A.; Schiro, F.; Naeem, Y.; Marianski, M.; Braunschweig, A. B. "Synthesis and Binding of Mannose-Specific Synthetic Carbohydrate Receptors" *Chemistry – A European Journal*, **2020**, *26.* **DOI: 10.1002/chem.202000481**

[57] Biswas, S.; Kumar, M.; Levine, A. M.; Jimenez, I.; Ulijn, R. V.; Braunschweig, A. B. "Visible-Light Photooxidation in Water by $^1O_2$-Generating Supramolecular Hydrogels" *Chemical Science* **2020***, 11,* 4239−4245. **DOI: 10.1039/C9SC06481H**

[56] Levine, A. M.; Bu, G.; Biswas, S.; Tsai, E. H. R.; Braunschweig, A. B.; Nannenga, B. L. "Crystal Structure and Orientation of Organic Semiconductor Thin Films by Microcrystal Electron Diffraction and Grazing-Incidence Wide-angle X-ray Scattering" *Chemical Communications,* **2020**, *56*, 4204–4207. **DOI: 10.1039/d0cc00119h**

[55] Carbonell, C.; Valles, D.; Wong, A. M.; Carlini, A.; Touve, M.; Gianneschi, N. C.; Braunschweig, A. B. "Polymer Brush Hypersurface Photolithography" *Nature Communications,* **2020**, *11*, 1244. **DOI: 10.1038/s41467-020-14990-x**
• Highlighted in *Chemical & Engineering News*, 15 March 2020

[54] Wong, A. M.; Valles, D. J.; Carbonell, C.; Chambers, C. L.; Rozenfeld, A. J.; Aldasooky, R. W.; Braunschweig, A. B. "Controlled-height brush polymer patterns via surface-initiated thiol-methacrylate photopolymerizations" *ACS Macro Letters* **2019**, *8*, 1474−1478. **DOI: 10.1021/acsmacrolett.9b00699**

[53] Levine, A. M.; Biswas, S.; Braunschweig, A. B. "Photoactive Organic Material Discovery with Combinatorial Supramolecular Assembly" *RSC Nanoscale Advances,* **2019**, *8,* 1917 – 1920. DOI: 10.1039/c9na00476a.

[52] Valles, D. J.; Naeem, Y.; Rozenfeld, A. Y.; Aldasooky, R. W.; Wong, A. M.; Carbonell, C.; Mootoo, D. R.; Braunschweig, A. B. "Multivalent Binding of Concanavalin A on Variable Density Mannoside Miroarrays" *Faraday Discussions*, **2019***, 5*, 3131—3138. DOI: 10.1039/C9FD00028C.

[51] Kroiss, D.; Ashkenasy, G.; Braunschweig, A. B.; Tuttle, T.; Ulijn, R. V. "Can Systems Chemistry Unravel the Mystery of the Origin of Life?" *CHEM*, **2019**, *5*, In *Press.* DOI: 10.1016/j.chempr.2019.05.003

[50] Valles, D. J.; Naeem, Y.; Carbonell, C.; Wong, A. M.; Mootoo, D. R; Braunschweig, A. B. "Maskless Photochemical Printing of Multiplexed Glycan Microarrays for High-Throughput Binding Studies" *ACS Biomaterials Science & Engineering*, **2019***, 5*, 3131 – 3138. DOI: 10.1021/acsbiomaterials.9b00033.

[49] Palanichamy, K.; Joshi, A.; Bravo, M. F.; Shlain, M. A.; Schiro, F.; Naeem, Y.; Garg, H.; Braunschweig, A. B. "Anti-Zika Activity of a Library of Synthetic Carbohydrate Receptors" *J. Med. Chem.* **2019**, *62,* 4110-4119. DOI: 10.1021/acs.jmedchem.9b00142

[48] Levine, A. M.; Schierl, C.; Basel, B. S.; Ahmed, M.; Camargo, B. A.; Guldi, D. M.; Braunschweig, A. B. "Singlet Fission in Combinatorial Diketopyrrolopyrrole–Rylene Supramolecular Films" *J. Phys. Chem. C* **2019**, *123,* 1587-1595. **DOI: 10.1021/acs.jpcc.8b09593**

[47] Palanichamy, K.; Bravo, M. F.; Shlain, M. A.; Schiro, F.; Naeem, Y.; Marianski, M.; Braunschweig, A. B. "Binding Studies on a Library of Induced-Fit Carbohydrate Receptors with Mannoside Selectivity" *Chemistry – A European Journal*, **2018**, *24,* 13971 –13982.

[46] Carbonell, C.; Valles, D. J.; Wong, A. M.; Tsui, M. W.; Niang, M.; Braunschweig, A. B. "Massively Multiplexed Tip-Based Photochemical Lithography under Continuous Capillary Flow" *CHEM* **2018**, *4*, 857 – 867. DOI: 10.1016/j.chempr.2018.01.020 **Hot Paper.**

[45] Carbonell, C.; Braunschweig, A. B. "Towards 4D Nanoprinting with Tip-Induced Organic Surface Reactions", *Accounts of Chemical Research,* **2017**, 50, 190 – 198.

[44] Liu, X; Carbonell, C.; Braunschweig, A. B. "4D Nanolithography Will Require Synergistic Advances in Surface Chemistry, Nanolithography, and Characterization" *RSC Chemical Society Reviews,* **2016**, *45*, 6289 – 6310.

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[42] Shokri Kojori, H.; Ji, H.; Paik, Y.; Braunschweig, A. B.*; Park, S. J.* "Monitoring Interfacial Lectin Binding With Nanomolar Sensitivity Using a Plasmon Field Effect Transistor" *Nanoscale,* **2016**, *8*, 17357 – 17364.

[41] Liu, X.; Zheng, Y.; Khothari, E.; Peurifoy, S. R.; Ji, Y.; Braunschweig, A. B.* "4D Polymer Patterning Within a Massively Parallel Flow-Through Photochemical Reactor", *Polymer Chemistry*, **2016**, *7*, 3229 – 3235. **Journal Cover**
• Highlighted in *Chemistry World*, 13 April 2016; Highlighted in *Scientific American*
• *Chemistry World* cutting edge chemistry 2016, 15 December 2016

[40] Smieska, L. M.; Li, Z. Ley, D.; Braunschweig, A. B.; Marohn, J. A. "Trap-Clearing Spectroscopy in Perylene Diimide Derivatives" *Chemistry of Materials*, **2016**, *28,* 813 – 820.

[39] Zhou, Y.; Guzman, C. X.; Helguero-Kelley, L.; Captain, B.; Braunschweig, A. B.* "Isolating Structural Effects on Diketopyrrolopyrrole Aggregation" *Journal of Physical Organic Chemistry*, **2016**, *12*, 689 – 699.
• Early Career Excellence in Physical Organic Chemistry Award Paper

[38] Guzman, C. X.; Krick Calderon, R. M.; Xu, H.; Peurifoy, S. R.; Yamazaki, S.; Guo, C.; Davidowski, S. K.; Rosner, H. F.; Holland, G.; Scott, A. M.; Braunschweig, A. B.* "Competitive Charge and Spin Dynamics in Multicomponent Hierarchical Donor-Acceptor Films," *Journal of Physical Chemistry C,* **2015**, *119*, 19584 – 19589.

[37] Peurifoy, S. R.; Guzman, C. X.; Braunschweig, A. B.* "Topology, assembly, and electronics: three pillars for designing supramolecular polymers with emergent optoelectronic behavior" *Polymer Chemistry,* **2015**, *6*, 5529 – 5539.

[36] Xu, H.; Zheng, Y.; Munro, C. J.; Ji, Y.; Braunschweig, A. B.* "Carbohydrate Nanotechnology: Hierarchical Assembly and Molecular Logic Using Nature's Other Information Carrying Biopolymers" *Current Opinion in Biotechnology,* **2015**, *34*, 41 – 47.

[35] Han, X.; Bian, S.; Liang, Y.; Houk, K. N.; Braunschweig, A. B.* "Reactions in Elastomeric Nanoreactors Reveal the Role of Force on the Kinetics of the Huisgen Reaction on Surfaces" *Journal of the American Chemical Society,* **2014**, *136*, 10553–10556.
• Highlighted in *Chemical and Engineering News*, 28 July 2014, *vol 92(30)*, p32
• Highlighted as part of *ACS Select* collection on nanoreactors

[34] Ley, D.; Guzman, C. X.; Adolfsson, K. H.; Scott, A. M.; Braunschweig, A.B.* "Emergent Charge Transfer in Cooperatively Assembling Donor-Acceptor Superstructures" *Journal of the American Chemical Society,* **2014**, *136*, 7809 – 7812.

[33] Bian, S.; Zieba, S. B.; Morris, W. M.; Xu, H.; Richter, D. C.; Brown, K. A.; Mirkin, C. A.; Braunschweig, A. B.* "Beam Pen Lithography as a New Tool for Spatially Controlled Photochemistry, and its Utilization in the Synthesis of Multivalent Glycan Arrays" *Chemical Science,* **2014**, *5*, 2023 – 2030.

[32] Takagi, D.; Palacci, J.; Braunschweig, A.B.; Shelley, M. J.; Zhang, J. "Synthetic Microswimmers Orbit Closely Around Spherical Obstacles" *Soft Matter,* **2014**, *10*, 1784–1789.

[31] Eichelsdoerfer, D.J.; Liao, X.; Cabezas, M.; Morris, W.; Radha, B.; Brown, K. A.; Giam, L. R.; Braunschweig, A. B.; Mirkin, C. A. "Creating Large-Area Molecularly Textured Surfaces with Polymer Pen Lithography" *Nature Protocols*, **2013**, *8*, 2548-2560.

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[29] Zhong, X.; Bailey, N. A.; Schesing, K. B.; Bian, S.; Campos, L. M.;* Braunschweig, A. B.* "Materials for the Preparation of Polymer Pen Lithography Tip Arrays and a Comparison of their Printing Properties" *Journal of Polymer Science A: Polymer Chemistry,* **2013**, *51*, 1533 –1539. **Journal Cover.**

[28] Bian, S.; Scott, A. M.; Cao, Y.; Liang, Y.; Osuna, S.; Houk, K. N.; Braunschweig, A. B.* "Covalently Patterned Graphene Surfaces by a Force Accelerated Diels-Alder Reaction" *Journal of the American Chemical Society*, **2013**, *135*, 9240 – 9243.
• Highlighted in *Chemical and Engineering News*, 25 June 2013, *vol 91(26)*, p6.

• Highlighted in *Science*, **2013**, *341*, 320.
• *JACS* spotlight

[27] Takagi, D.;* Braunschweig, A. B.; Zhang, J.; Shelley, M. J. "Dispersion of Self-Propelled Rods Undergoing Fluctuation-Driven Flips" *Physics Review Letters*, **2013**, *110*, 038301.

[26] Rieth, S.; Miner, M. R.; Chang, C. M.; Hurlocker, B.; Braunschweig, A.B.* "Saccharide Receptor Achieves Concentration Dependent Mannoside Selectivity Through Two Distinct Cooperative Binding Pathways" *Chemical Science,* **2013**, *4,* 357–367.

[25] Bian, S.; Schesing, K. B.; Braunschweig, A. B.* "Matrix-Assisted Polymer Pen Lithography Induced Staudinger Ligation" *Chemical Communications,* **2012**, *48,* 4995 – 4997.

[24] Bian, S.; He, J.; Schesing, K. B.; Braunschweig, A. B.* "Polymer Pen Lithography (PPL) Induced Site-Specific Click Chemistry for the Formation of Functional Glycan Arrays" *Small,* **2012**, *8*, 2000–2005.

[23] Shim, W.; Braunschweig, A. B.; Liao, X.; Chai, J.; Lim, J. K.; Zheng, G.; Mirkin, C. A. "Massively Parallel Hard-Tip, Soft-Spring Lithography" *Nature,* **2011**, *469*, 516–520.
• Highlighted in *Chemical & Engineering News*, **2011**, *89*, 11.
• Highlighted in *Science*, **2011**, *331*, 519.

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[20] Liao, X.; Braunschweig, A. B.; Zheng, Z.; Mirkin, C. A. "Force- and Time-Dependent Size and Shape Control in Molecular Printing via Polymer Pen Lithography (PPL)" *Small*, **2010**, *6*, 1082–1086. Equal Author Contribution. PubMed # 20184292

[19] Wiester, M. J.; Braunschweig, A. B.; Mirkin, C. A. "Solvent and Temperature Induced Switching of Tweezer-Like Rh^{I} Phosphinoalkyl Thioether (PS) Complexes" *Inorganic Chemistry,* **2010**, *49*, 7188-7196.

[18] Huang, L.; Braunschweig, A. B.; Shim, W.; Huo, F.; Lim, J.-K.; Xue, C.; Hurst, S. J.; Mirkin, C. A. "Matrix-Assisted Dip-Pen Nanolithography (MA-DPN) and Matrix-Assisted Polymer Pen Lithography (MA-PPL)" *Small,* **2010**, *6*, 1077–1081. Equal Author Contribution.

[17] Chen, X.; Yeganeh, S.; Qin, L.; Li, S.; Xue, C.; Braunschweig, A. B.; Schatz, G.C.; Ratner, M. A.; Mirkin, C. A. "Chemical Fabrication of Hetero-Nanogaps for Molecular Transport Junctions" *Nano Letters,* **2009**, *9*, 3974 – 3979. Highlighted by NanoTech Web News.

[16] Ullman, P. A.; Braunschweig, A. B.; Lee, O.-S.; Wiester, M. J.; Schatz, G. C.; Mirkin, C. A. "Inversion of Product Selectivity in an Enzyme-Inspired Metallosupramolecular Tweezer Catalyzed Epoxidation Reaction" *Chemical Communications,* **2009**, 5121–5123.

[15] Braunschweig, A. B.; Huo, F.; Mirkin, C. A. "Molecular Printing" *Nature Chemistry,* **2009**, *1*, 353–358.

[14] Olson, M. A.; Braunschweig, A. B.; Ikeda, T.; Fang, L.; Trabolsi, A.; Stoddart, J. F. "Thermodynamic Forecasting of Mechanically Interlocked Switches" *Organic and Biomolecular Chemistry,* **2009**, 4391 – 4405. Equal author contribution. **Journal Cover.**

[13] Chen, X.; Braunschweig, A. B.; Wiester, M. J.; Yeganeh, S.; Ratner, M. A.; Mirkin, C. A. "Formation of Molecular Transport Junctions using Click Chemistry within Nanogaps Followed Spectroscopically" *Angewandte Chemie International Edition,* **2009**, *48*, 5178–5181. Equal author contribution. Hot Paper. **Journal Cover.**
• This work was highlighted in *Angewandte Chemie International Edition,* **2009**, *48*, 5583 – 5585.

[12] Braunschweig, A. B.; Senesi, A. J.; Mirkin, C. A. "Redox Activating Dip Pen Nanolithography (RA-DPN)" *Journal of the American Chemical Society*, **2009**, *131*, 922–923.

[11] Olson, M. A.; Braunschweig, A. B.; Fang, L.; Ikeda, T.; Klajn, R.; Trabolsi, A.; Mirkin, C. A.; Gryzbowski, B. A.; Stoddart, J. F. "A Bistable Poly[2]catenane Forms Nanosuperstructures" *Angewandte Chemie International Edition,* **2009**, *48*, 1792–1797.

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[9] Weizmann, Y.; Braunschweig, A. B.; Cheglakov, Z.; Willner, I. "A Polycatenated DNA Scaffold for the One-Step Assembly of Hierarchical Nanostructures" *Proceedings of the National Academy of Science, USA,* **2008**, *105*, 5289 – 5294.

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[7] Braunschweig, A. B.; Dichtel, W. R.; Milijanić, O. Š.; Olson, M. A.; Spruell, J. M.; Khan, S. I.; Heath, J. R.; Stoddart, J. F. "Modular Synthesis and Dynamics of a Variety of Donor-Acceptor Interlocked Compounds Prepared by a Click Chemistry Approach" *Chemistry–An Asian Journal*, **2007**, *2*, 634 – 647.

[6] Northrop, B. N.; Braunschweig, A. B.; Mendes, P. M.; Stoddart, J. F. "Progress in Designing Nanoscale Machines and Devices" *Handbook of Nanoscience, Engineering, and Technology 2nd Edition*, Goddard, W. A. III *ed.* CRC Press, Boca Raton.

[5] Braunschweig, A. B.; Elnathan, R.; Willner, I. "Monitoring the Activity of Tyrosinase on a Tyramine / Dopamine Functionalized Surface by Force Microscopy" *Nano Letters,* **2007**, *7*, 2030−2036.

[4] Wieckowska, A.; Braunschweig, A. B.; Willner, I. "Electrochemical Control of Surface Properties Using a Quinone-Functionalized Monolayer: Effects of Donor-Acceptor Complexes" *Chemical Communications,* **2007**, 3918 − 3920. Equal author contribution.

[3] Braunschweig, A. B.; Ronconi, C.; Han, J.-Y.; Aricó, F.; Cantrill, S. J.; Stoddart, J. F.; Khan, S. I.; White, A. J. P.; Williams, D. J. "Pseudorotaxanes and Rotaxanes Formed By Viologen Derivatives" *European Journal of Organic Chemistry,* **2006**, 1857 – 1866.

[2] Choi, J. W.; Flood, A. H.; Steuerman, D. W.; Nygaard, S.; Braunschweig, A. B.; Moonen, N. M. P.; Laursen, B. W.; Luo, Y.; DeIonno, E.; Peters, A. J.; Jeppesen, J. O.; Xu, K.; Stoddart, J. F.; Heath, J. R. "Ground–State Equilibrium Thermodynamics and Switching Kinetics of Bistable [2]Rotaxanes Switched in Solution, Polymer Gels, and Molecular Electronic Devices" *Chemistry–A European Journal,* **2006**, *12*, 261 – 279. **Journal Cover.**

[1] Braunschweig, A. B.; Northrop, B. N.; Stoddart, J. F. "Structural Control at the Solid–Organic Interface" *Journal of Materials Chemistry,* **2006**, *16*, 32 – 44. **Journal Cover.**

ASSIGNED PATENTS

[5] **Braunschweig, A. B.**; Bian, S. "Covalently Patterned Graphene by a Force Accelerated Cycloaddition Reaction" Non-Provisional Patent Application *PCT/US13/44570*

[4] **Braunschweig, A. B.;** Rieth, S.; Li, Z. "Superstructures of diketopyrrolopyrrole donors and perylenediimide acceptros formed by hydrogen-bonding and pi…pi stacking" *US 9,206,180*

[3] **Braunschweig, A. B.**; Rieth, S.; Miner, M. R. "Carbohydrate Selective Receptors" *US PATENT 14/403,686*

[2] Mirkin, C. A.; Shim, W.S.; **Braunschweig, A. B.**; Liao, X.; Chai, J.; Zheng, G. "Massively Parallel Silicon Pen Nanolithography" *US PATENT 8961853*

[1] Mirkin, C. A.; Liao, X.; **Braunschweig, A. B.** "Force Feedback Leveling of Tip Arrays for Nanolithography" *PCT/US 12/960,439*

PATENT APPLICATIONS

[1] Mirkin, C. A.; Liu, C.; Wang, Y.; **Braunschweig, A. B.**; Xing, L.; Giam, L. "Scanning Probe Epitaxy" Non-Provisional Patent Application *PCT/US09/43864; US Patent Application No. 12/465,616.*

[2] Mirkin, C.A.; Liu, C. A.; Wang, Y.; **Braunschweig, A. B.**; Xing, L.; Giam, L.; Fragala, J.; Henning, A. "Dual-Tip Cantilevers" Non-Provisional Patent Application *PCT/US09/43866*

[3] Mirkin, C. A.; **Braunschweig, A. B.**; Senesi, A. J. "Redox-Activated Patterning" Non-Provisional Patent Application *PCT/US09/65399*

[4] Mirkin, C. A.; Chen. X.; **Braunschweig, A. B.**; Wiester, M. J.; Xu, X.; Daniel, W. L. "Click Chemistry, Molecular Transport Junctions, and Colorimetric Detection of Copper" Non-Provisional Patent Application *US10/29014.*

[5] Mirkin, C. A.; **Braunschweig, A. B.**; Chai, J.; Eichelsdoerfer, D.; Giam, L. R.; Liao, X.; Wong, L. S. "Generation of Combinatorial Patterns by Deliberate Tilting of a Polymer-Pen Arrays" Non-Provisional Patent Application *PCT/US10/58773*

[6] Mirkin, C. A.; Shim, W.S.; **Braunschweig, A. B.**; Liao, X.; Chai, J.; Zheng, G. "Massively Parallel Silicon Pen Nanolithography" Non-Provisional Patent Application *PCT/US 13/375,361*

[7] **Braunschweig, A. B.**; He, Jiajun; Bian, S.; Schesing, K. B. "Nanoreactor Printing" Non-Provisional Patent Application *PCT/US12/32019*

[8] **Braunschweig, A. B.**; Zhong, X.; Schesing, K. B.; Bian, S. "Polymer Tips" Non-Provisional Patent Application US2014/0141167 A1

[9] **Braunschweig, A. B.;** Garg, H.; Palanichamy, K.; Joshi, A.; Bravo, M. F. "Carbohydrate binding small molecules with antiviral activity" Non-Provisional Patent Application *US16/519,652*

INVITED LECTURES

[88] **Western Connecticut State University, Department Colloquium, Danbury, CT 16 October 2020**
"Molecular Printing: World-Building at the Nanoscale"

[87] **Converge to Transform, CUNY Advanced Science Research Center, 7 May 2020**
"Synthetic Carbohydrate Receptors with Potent Antiviral Activity"

[86] **Facultad de Quimica y Farmacologia, Universidad de Chile, Santiago, Chile 9 April 2020**

[85] **Department of Chemistry, Queens College, New York City, NY 2 March 2020**
"Donor-Acceptor Superstructures with Emergent Optoelectronic Properties: Assembly and Photophysics"

[84] **Naval Research Laboratory, Washington, DC, 28 February 2020**
"Accelerating Surface Discovery: New Tools and Ideas for Mediating Biotic-Abiotic Interactions"

[83] **Department of Biomedical Engineering, Tufts University, Medford, MA 23 January 2020**
"Decrypting the Carbohydrates Code that Traffics Biological Information"

[82] **Air Force Office of Scientific Research Natural Material Systems and Extremophiles Program Review, 9-13 December 2019, Niceville, FL**
"Synthetic Mucins – A versatile new responsive material"

[81] **City College of New York, Chemical Engineering Department Symposium, 21 October 2019**
"Organic Surface Chemistry: Discovery and Optimization"

[80] **Gordon Research Conference Carbohydrates, 23 – 28 June 2019, Hong Kong, CN**
"Synthetic Carbohydrate Receptors with Potent Antiviral Activity"

[79] **Hong Kong Baptist University, Department of Chemistry, 21 June 2019**
"Synthetic Carbohydrate Receptors and the Subtleties of Glycan Binding"

[78] **Air Force Research Laboratory, Dayton, Ohio, 12 April 2019**
"Synthetic Carbohydrate Receptors"

[77] **257th American Chemical Society Meeting, Orlando, FL, 2 April 2019**
"Synthetic Carbohydrate Receptors with Potent Anti-Zika Virus Activity"

[76] **257th American Chemical Society Meeting, Orlando, FL, 1 April 2019**
"Multiplexed Polymer Brush Nanopatterning in 4D"

[75] **New York Section of the ACS High School Research Poster Section, Keynote Lecture, 9 February, 2019, Brooklyn, NY**
"4D Nanolithography: Building Molecular Machines"

[74] **New York Systems Chemistry Symposium, 13 December 2018, NY, NY**
"How can subtleties of noncovalent binding be used to target the undruggable?"

[73] **Air Force Office of Scientific Research Natural Material Systems and Extremophiles Program Review, 2-5 December 2018, Niceville, FL**
"Carbohydrate Materials Discovery: Towards a Post-Cellulosic Future"

[72] **256th American Chemical Society Meeting, Boston, MA, 19 August 2018**
"Molecular Printing: Combining Organic Chemistry and Nanolithography to Recreate Biointerfaces"

[71] **Fusion Functional Polymer Systems, Nassau, Bahamas, 7 June 2018**
"Combinatorial Diketopyrrolopyrrole-rylene Optoelectronic Supramolecular Polymer Films"

[70] **Functional Supramolecular Systems Symposium, NY, NY, 31 May 2018**
"Photoactive Supramolecular Donor-Acceptor Polymer Films"

[69] **Gordon Research Conference Tribology, Lewiston, ME, 24 – 29 June, 2018**
"Accelerating Organic Surface Reactivity with Mechanocatalysis"

[68] **City College New York, Chemistry Department Colloquium, 26 March, 2018**
"Molecular printing: Controlling organic chemistry on the biological length scale"

[67] **255th American Chemical Society National Meeting, New Orleans LA, 19 March 2018**
"Interrogating Force-Induced Reaction Acceleration on Bond-Forming Surface Reactions"

[66] **New York Nanoscience Discussion Group, New York University, 20 Jan 2018**
"Molecular Printing: Controlling Surface Structure on the Biological Length Scale"

[65] **254rd American Chemical Society National Meeting, Washington DC, 20 – 24 August, 2017**
"Design Rules for Optimizing Emergent Optoelectronic Properties in Donor-Acceptor Films"

[64] **Army Research Office Organic Materials Program Review, Raleigh, NC, 7 – 11 August, 2017**
"Design Rules for Optimizing Emergent Optoelectronic Properties in Donor-Acceptor Films"

[63] **Golden Age for Chemistry, Nottingham, England, 25 – 28 June, 2017**
"4D nanolithography using a flow-through polymer printer"

[62] **Department Colloquium, College of Staten Island, 1 February, 2017, Staten Island, NY**
"Carbohydrate Nanotechnology"

[61] **Department Colloquium, University of Chicago, 4 November 2016, Chicago, IL**
"Carbohydrate Nanotechnology"

[60] **Southeast Regional Meeting of the American Chemical Society (SERMACS), Charleston, SC 23-26 October 2016, Cope Symposium, "Molecules to Functional Supramolecular Materials"**
"Carbohydrate Nanotechnology"

[59] **Case Western Reserve University, Department of Macromolecular Science and Engineering Colloquium, Cleveland, OH 7 October 2016**
"Molecular Printing and Artificial Photosynthesis"

[58] **Case Western Reserve University, Department of Chemistry Colloquium, Cleveland, OH 6 October 2016**
"Carbohydrate Nanotechnology"

[57] **Mini-Course on Nanobiotechnology, Universidad ORT, Montevideo, Uruguay, 14-19 August, 2016**
"Molecular Printing", "Supramolecular Carbohydrate Recognition", and "Artificial Photosynthesis"

[56] **Indonesian-American Kavli Frontiers of Science Symposium, 1-4 August 2016, Malang, Indonesia**
"Tip-Induced Organic Reactions"

[55] **XXVIII International Carbohydrate Symposium, New Orleans, LA 17-22 July 2016**
Keynote Address
"Carbohydrate Nanotechnology"

[54] **National Taiwan University, Taipei, Taiwan, 1 June 2016**
"Carbohydrate Nanotechnology"

[53] **National Tsing-Hua University, Hschin-Chu City, Taiwan 31 May 2016**
"Carbohydrate Nanotechnology"

[52] **Hunter College, Chemistry Department Colloquium, 21 April, 2016**
"Cancer Carbohydrate Nanotechnology"

[51] **University of Florida, Chemistry Department Colloquium, 12 April, 2016**
"Cancer Carbohydrate Nanotechnology"

[50] **Florida International University, Department Colloquium, 23 March, 2016**
"On the quantitative determination of binding constants: Implications on supramolecular chemistry, surface science, and solar energy harvesting."

[49] **University of Massachussetts, Amherst Chemistry Department Colloquium, 24 February, 2016**
"Chasing Emergence: A Supramolecular Approach Towards Optically and Biologically Active Nanosystems"

[48] **Tufts University Department of Chemistry Colloquium, 23 February 2016**

"Chasing Emergence: A Supramolecular Approach Towards Optically and Biologically Active Nanosystems"

[47] **Emory University, Department of Chemistry Colloquium, 15 February, 2016**
"Chasing Emergence: A Supramolecular Approach Towards Optically and Biologically Active Nanosystems"

[46] **City University of New York, Advanced Science Research Center, 11 February 2016**
"Chasing Emergence: A Supramolecular Approach Towards Optically and Biologically Active Nanosystems"

[45] **AFOSR Natural Materials and Systems & Extremophiles Annual Program Review, 7-11 December, 2015, Ft. Walton Beach, FL**
"Carbohydrate Materials Discovery: Towards a Post-Cellulosic Future"

[44] **Pacifichem: Multi-scale & Synergistic Supramolecular Systems in Material and Biomedical Sciences, Honolulu, Hawaii, 15-20 December 2015**
"Nanosecond Charge Carrier Lifetimes in Hierarchical Donor-Acceptor Supramolecular Polymer Films"

[43] **CUNY Advanced Science Research Center Active & Adaptive Materials Symposium, New York, NY, 22-23 October 2015**
"Nanosecond Charge Carrier Lifetimes in Hierarchical Donor-Acceptor Supramolecular Polymer Films"

[42] **IX International Congress on Chemical Sciences, Technology and Innovation (Quimicuba' 2015) Nano and Supramolecular Chemistry Symposium 13 – 16th October 2015**
"Nanosecond Charge Carrier Lifetimes in Hierarchical Donor-Acceptor Supramolecular Polymer Films"

[41] **250th American Chemical Society National Meeting, Boston, MA 16 – 20 August 2015**
Organic Division Young Academic Investigators Symposium
"Increasing the Scope of Organic Reactions for Tailoring the Biotic/Abiotic Interface"

[40] **15th European Symposium on Organic Reactivity, Kiel, Germany, 31 August – 5 September 2015**
***Journal of Physical Organic Chemistry* Award for Early Excellence in Physical Organic Chemistry Award Lecture**
"Supramolecular Polymers and the Subtleties of Molecular Recognition"

[39] **Fusion Functional Polymer Materials Conference, Ascot, UK, 6 August 2015**
"Correlated Structure and Photophysics in Supramolecular Polymer Films"

[38] **Gordon Research Conference on Physical Organic Chemistry, Holderness, NH, 21-26 June, 2015**
***Journal of Physical Organic Chemistry* Award for Early Excellence in Physical Organic Chemistry Award Lecture**
"Addressing the surface chemistry bottleneck with force- and light-accelerated reactions**"**

[37] **International Mini-Conference on Singlet Fission, Erlangen, Germany, 14 – 16 May 2015**
Plenary Lecture: "Competing Charge and Spin Dynamics in Donor-Acceptor Hierarchical Films"

[36] **Department of Chemistry, University of Miami, 4 May 2015**
"The Surface Chemistry Bottleneck"

[35] **Department of Chemistry, University of California, Los Angeles, 30 April 2015**
Organization for Cultural Diversity in Science (OCDS) Lecture
"The Surface Chemistry Bottleneck"

[34] **Department of Materials Science Colloquium, University of California, Irvine, 29 April 2015**
"The Surface Chemistry Bottleneck"

[33] **Chemistry Department Colloquium, San Diego State University, 28 April, 2015**
"The Surface Chemistry Bottleneck"

[32] **Organic Chemistry Colloquium, University of California, San Diego, 27 April, 2015**
"The Surface Chemistry Bottleneck"

[31] **Physical Chemistry Colloquium, Purdue University, Lafayette, Indiana, 4 March 2015**
"The Surface Chemistry Bottleneck"

[30] **Chemistry Department Colloquium, Indiana University, Bloomington, Indiana, 3 March 2015**
"The Surface Chemistry Bottleneck"

[29] **Organic Chemistry Colloquium, Weizmann Institute of Science, Rehovot, Israel, 6 January 2015**
Addressing the Surface Chemistry Bottleneck

[28] **4th Zing Polymer Chemistry Conference, Riviera Maya, 10 – 13 December, 2014**
Competitive Electron Spin Dynamics in Multicomponent Hierarchical Donor-Acceptor Films

[27] **Chemistry Department Colloquium, Florida State University, 4 December, 2014**
Addressing the Surface Chemistry Bottleneck

[26] **Chemistry Department Colloquium, Wesleyan University, Middletown, CT, 21 November 2014**
Addressing the Surface Chemistry Bottleneck

[25] **Chemistry Department Colloquium, Dartmouth University, Hanover, NH 20 November 2014**
Addressing the Surface Chemistry Bottleneck

[24] **2nd Targeting and Triggering Basic Research Workshop and Review, Cambridge University, Cambridge, UK, 19-20 August 2014**
Emergent Charge Transfer in Cooperatively Assembling Donor-Acceptor Supramolecular Polymers and Films

[23] **ACS Florida Annual Meeting and Exposition, Tampa, Florida, 8 May 2014**
Keynote Address, Materials Division
Two Examples Demonstrating the Importance of Surface Organic Chemistry: Photochemically- and Force-Initiated Brush Polymer Microarrays

[22] **21st New Orleans Carbohydrate Symposium, New Orleans, LA, 21 March 2014**
"New Tools for the Preparation of Multivalent Glycan Nanoarrays"

[21] **247th American Chemical Society National Meeting, Dallas, TX**
Polymeric Materials: Science and Engineering Young Investigator's Symposium
"Photochemically- and Force-Initiated Brush Polymer Microarrays and Their Applications in Sensing and Electronic Materials"

[20] **Fusion Functional Polymeric Materials, Cancun, Mexico, 12 February 2014**
"Emergent Charge Transfer in Cooperatively Assembling Donor-Acceptor Superstructures"

[19] **AFOSR Natural Material and Systems Program Review, Fort Walton, FL, December 13, 2013**
"Carbohydrate Nanotechnology: Multivalency, Logic, Organization"

[18] **CUNY Brooklyn, Department of Chemistry, Department Colloquium, November 21, 2013**
"Photochemically- and Force-Initiated Brush Polymer Microarrays and Their Applications in Sensing and Electronic Materials"

[17] **Florida International University, Department of Physics, Department Colloquium**
"The Potential of Massively Parallel Tip Arrays in Biological Microarrays and Electronics"

[16] **246th American Chemical Society National Meeting, Indianapolis, IN**
Division of Colloid and Surface Chemistry: Supramolecular Nanomaterials
"Complexity as the Rule: Examples From Supramolecular Donor-Acceptor Systems to Carbohydrate Recognition Suggest Cooperativity and Multivalency are Inevitable"

[15] **SUNY Stony Brook, Department Colloquium, February 8, 2013**
"Carbohydrate Nanotechnology and Self-Assembling Complexity: Beyond Binary Solutions to Molecular Logic"

[14] **AFOSR Natural Material and Systems & Extremophiles Program Review, Washington D.C.**
"Carbohydrate Nanotechnology: Hierarchical Assemblies and Information Processing with Oligosaccharide Host-Guest Systems"

[13] **Center for the Chemistry of Integrated Systems, Northwestern University, May 25, 2012**
"A Mannose-Selective Synthetic Receptor With a Unique Cooperative Binding Mechanism"

[12] **University of Miami, Department of Chemistry, February 21, 2012**
"A Mannose-Selective Synthetic Receptor With a Unique Cooperative Binding Mechanism"

[11] **AFOSR Natural Material and Systems & Extremophiles Program Review, Washington D.C.**
"Carbohydrate Nanotechnology: Hierarchical Assemblies and Information Processing with Oligosaccharide Host-Guest Systems"

[10] **Army Research Office, Durham, North Carolina, October 21, 2011**
"Frontiers of Supramolecular Design: From Polymer Superstructures to Synthetic Lectins"

[9] **The Polytechnic Institute of New York University, October 7, 2011**

"Decoding the Glycome with a New Family of Synthetic Lectins"

[8] **City University of New York, Staten Island, April 28, 2011**
"Molecular Printing: Solving the sub-100 nm Soft Matter Conundrum"

[7] **Courant Institute of Mathematical Sciences, New York University, February 3, 2011**
"Molecular Printing: Solving the sub-100 nm Soft Matter Conundrum"

[6] **Air Force Research Laboratory, Dayton, OH, August 25, 2010**
"Molecular Printing: Solving the sub-100 nm Soft Matter Conundrum"

[5] **Northwestern University, May 28, 2010**
Chemistry for the Next Generation by the Next Generation
"Polymer Pen Lithography"

[4] **DePaul University, Chicago, IL, October 24, 2009**
"Molecular Printing"

[3] **Naval Research Laboratory, Washington, D.C., July 17, 2009**
"Frontiers of Tip-Based Nanolithography "

[2] **Illinois Institute of Technology, May 9, 2008**
"Changing Chemical Education One STM at a Time"

[1] **Illinois Institute of Technology, June 12, 2008**
"Nuances of Molecular Structure in Device Design"

PRESENTATIONS

[25] **252nd ACS National Meeting, San Francisco, California, 2 – 6 April, 2017**
"4D nanolithography using a flow-through polymer printer"

[24] **252nd ACS National Meeting, San Francisco, California, 2 – 6 April, 2017**
"Water-Soluble synthetic carbohydrate receptor with non-glucosidic selectivity"

[23] **251st ACS National Meeting, San Diego, California, 13 – 17 March 2016**
"4D Nanomanufacturing Using Flow Through Photochemical Polymerizations"

[22] **Gordon Research Conference, Salvia Regina, RI, 3 – 8 August, 2014**
"Cooperatively Assembling Donor-Acceptor Superstructures Direct Energy Into an Emergent Charge Separated State"

[21] **247th American Chemical Society National Meeting, Dallas, Texas, 20 March 2014**
"Glycan Microarrays Prepared via a Beam Pen Lithography Induced Thiol-Acrylate Photopolymerization"

[20] **8th International Symposium on Macrocyclic and Supramolecular Chemistry, Washington D.C., 2013**
"Accessing Molecular Complexity With Conformationally Dynamic Synthetic Carbohydrate Receptors"

[19] **Gordon Research Conference, Self-Assembly, Les Diablerets, Switzerland, 2013**
"Carbohydrate Receptor Defies Cram's Rule of Preorganization to Achieve Mannose Selectivity"

[18] **244th American Chemical Society National Meeting, Philadelphia, PA, 2012**
"Using Polymer Pen Lithography to Create New Covalent Bonds on Surfaces with Sub-micrometer Feature Diameters"

[17] **244th American Chemical Society National Meeting, Philadelphia, PA, 2012**
"Synthetic Carbohydrate Receptors Achieve Specificity Through Positive Allosteric Cooperativity"

[16] **244th American Chemical Society National Meeting, Philadelphia, PA, 2012**
"Matrix-assisted Polymer Pen Lithography: A new method for immobilization of bioorthogonal reactions and kinetic characterization of force catalyzed reactions"

[15] **244th American Chemical Society National Meeting, Philadelphia, PA, 2012**
World Class University International Symposium on Energy Storage and Conversion
"Donor-Acceptor Crystalline Supramolecular Polymers for Solar Energy Harvesting"

[14] **Gordon Research Conference, Donor-Acceptor Systems, Salvia Regina, Rhode Island, 2012**
"Donor-Acceptor Crystalline Supramolecular Polymers"

[13] **Gordon Research Conference, Electronic Processes in Organic Materials, Il Ciocco, Italy, 2012**
"Photoactive Donor-Acceptor Crystalline Supramolecular Polymers"

[12] **9th US-Korea Workshop on Nanostructured Materials, Seattle, WA, 2010**
"Template Directed Assembly Strategies"

[11] **5th International Symposium on Macrocyclic and Supramolecular Chemistry, Nara, Japan, 2010**
"Solvent, Temperature, and Electronic Effects on the Switching of Rh^{I} Macrocycles Formed via the Weak Link Approach"

[10] **Tip-Based Nanomanufacturing Review Meeting, DARPA, San Diego, CA, 2010**
"Scanning Probe Epitaxy"

[9] **8th US-Korea Workshop on Nanostructured Materials, Seoul, Korea, 2009**
"Template-Directed Assembly Strategies"

[8] **American Chemical Society National Meeting, Washington, D.C., 2009**
"Redox-Activating Dip-Pen Nanolithography"
"Functional Nanosystems for Molecular Electronics, Biodiagnostics and Biomimetic Catalysis"

[7] **The 53rd International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication, Marco Island, FL, 2009**
"Frontiers of Tip-Based Nanofabrication: From DPN and Beyond"

[6] **American Chemical Society National Meeting, New Orleans, LA, 2008**
"Bistable Side-Chain Poly[2]catenanes: A Mechanically Switchable Polymer"

[5] **American Chemical Society National Meeting, Boston, MA, 2007**
"Monitoring the Activity of Tyrosinase by Force Microscopy: Developing Biosensors Using Dynamic Force Interactions"

[4] **American Chemical Society National Meeting, Atlanta, GA, 2006**
"Programmed Assembly of Quantum Dot Architectures on Surfaces *via* Molecular Recognition"

[3] **American Chemical Society National Meeting, San Francisco, CA, 2005**
"Highly Convergent Synthesis of Rotaxanes via Click Chemistry"

[2] **American Chemical Society National Meeting, Washington, D.C., 2005**
"Thermodynamic Control of Bistable Rotaxanes"
"An Outreach Scanning Tunneling Microscope"

[1] **11th International Symposium of Novel Aromatic Compounds, Newfoundland, Canada, 2005**
"Nuances of Molecular Structure in Device Performance"

TEACHING

2019-Present **CUNY Graduate Center, Chemistry and Biochemistry, Physical Organic Chemistry (CHEM75000)**
2017-Present **Hunter College Department of Chemistry, Organic Chemistry II (Spring CHM 224)**
2017-2018 **Hunter College Department of Chemistry, Organic Chemistry I (Fall CHM 222)**
2016 **UM Department of Chemistry, Heterocyclic Chemistry (CHM 592B/692B)**
2015 **UM Department of Chemistry, Organic Chemistry I (CHM 201A)**
2015 **UM Department of Chemistry, Heterocyclic Chemistry (CHM 591B)**
2014 **UM Department of Chemistry, PRISM Organic Chemistry I (CHM 201EP)**
2014 **UM Department of Chemistry, Heterocyclic Chemistry (CHM 591B)**
2013 **UM Department of Chemistry, PRISM Organic Chemistry I (CHM 201E)**
2013 **UM Department of Chemistry, PRISM Organic Chemistry II (CHM 202D)**
2012 **NYU Department of Chemistry, Organic Chemistry II (CHEM-UA 226)**
2010-2012 **NYU Department of Chemistry, Physical Organic Chemistry (G25.1313001 / V25.0913001)**

OUTREACH

2017-Present **Director, ASRC Research Internships in the Physical Sciences**
2015 **WVUM "Get Smart" On-Air Interview, 1 December 2015**
2013-2016 **Director, UM High School Research Internships in Physical Sciences (RIPS) Program**
2011-2015 **CHUST Summer Student Host**
2010-2012 **Young Women's Leadership School of East Harlem Inquiry Based Teaching, Founded NYU-Met Teaching Collaborative**
2011-Present **International Gateway for Gifted Youth New York Hosting**

2011 **Faculty Resources Network, Materials World Workshop on Photolithography**
2001–2004 **Graduate Student Teaching Assistant, UCLA**
2005–2006 **National Science Foundation GK–12 Fellow in Fremont High-School, Los Angeles**
2002–2006 **California NanoSystems Institute Outreach Committee**
This work was highlighted in *Chemical and Engineering News*, **2005**, *83*, 36 – 37.

UNIVERSITY SERVICE
2018-Present **CUNY Graduate Program in Chemistry Executive Committee (Hunter Representative)**
2018&2019 **ASRC Nanoscience Faculty Search Committee**
2018&2019 **CCNY Organic Chemistry Faculty Search Committee**
2017-Present **ASRC Nanoscience Initiative Executive Committee**
2017-Present **CUNY Physical Sciences Recruitment Committee**
2016 **UM Singer Stamps Fellowship Interviewe**r
2015-2016 **UM Faculty Fellow Eaton Residence Hall**
2015-2016 **UM Fulbright and Prestigious Awards Committee**
2015 **UM Beyond the Book Adjudication**
2014 **UM Chemistry Faculty Search Committee**
2014-2015 **UM Prestigious Awards and Fulbright Selection Committee**
2013, 2016 **UM Stamps and Singer Fellowship Selection Weekend**
2013 **UM BioNIUM Instrumentation Committee**
2013-2014 **UM Chemistry Graduate Student Committee**
2010-2012 **NYU Chemistry Graduate Student Committee**
2011-2012 **NYU Faculty Oversight, Shared Instrumentation Facility**
2012 **NYU Physical Chemistry Curriculum Committee**
2012 **NYU Undergraduate Laboratories Search Committee**

CURRENT AND PAST GROUP MEMBERS
Past Postdoctoral: Dr. Carlos Carbonell (PhD, Institut Català de Nanociència i Nanotecnologia, Barcelona Institute of Science and Technology); **Dr. Charlotte Hinkle** (PhD Ohio State University, Currently: Analyst, Government Accountability Office); **Dr. David Ley** (PhD Justus-Liebig University Giessen; Current: BASF, Ludwigshafen); **Dr. Zhong Li** (PhD SUNY Stony Brook, NY; Current: Ren-Pharm International, Ltd, Jericho, NY); **Dr. Kalanidhi Palinachamy** (PhD, Indian Institute of Technology, Bombay, Mumbai, India; Amar Chemistry Private Limited, Mumbai, India); **Dr. Steven Rieth** (PhD Ohio State University, OH; Current: USPTO)

Current Postdoctoral: Chak-Shing Kwan (PhD, Hong Kong Baptist University)

Past Graduate: Shudan Bian (Graduate Student, NYU ’14; Thesis Title: Massively Parallel Tip Arrays As Tools To Gain New Insights Into Organic Reactions on Surfaces”; Postdoc, Tufts University, David Walt, Current: Teva Pharmaceuticals); **Carmen X. Guzman** (PhD, UM ’17, *NSF GRF,* “Extended Charge Carrier Lifetimes in Hierarchical Donor-Acceptor Supramolecular Polymer Films”, Current: *Church & Dwight Co.*);

Current Graduate: Marcello Fernando Bravo (CUNY PhD ’20); **Antonio Cerullo** (CUNY PhD ’23; LLewyn Fellowship); **Andrew Levine** (CUNY PhD ’21; Schechtman Award for Meritorious First Year); **Daniel Valles** (CUNY MA ’17, PhD ’22); **Sankersan Biswas** (CUNY PhD ’22); **Yerzhan Zholdassov** (CUNY PhD ’23).

Past Undergraduate: Mehroz Ahmed (Hunter, BS, ’18; Current: Graduate Student, Chemistry, UT Austin); **Patrick Aurelus** (UM, B. A. ’15, *ACS Scholar,* Current Position: Herba Diagnostics, Miami Gardens); **Braden Camargo** (Hunter, BS ’18); **Courtney Chambers** (Hunter, ’20; REU Summer 2019);**Thomas Carlino** (UM B. S. ’17); **Clifford Chang** (NYU BS ’14, Current Position: Medical Student, Northwestern University School of Medicine); **Ezan Khotari** (UM B.S. ’18, University of Pittsburgh Medical School)**; Jungeun “Jasmine” Lee** (REU Summer Student, Montclair State University ’13); **Michelle Levitsky** (Hunter, ’18; NYU Dental ‘22); **Rachelle Mariano** (UM B.A. ’15; Current Position: Graduate Student, Bioinformatics, Harvard University); **Maxim Marshalik** (Undergraduate, NYU ’11, Current Graduate Student UCLA Chemistry); **Daniel C. Richter** (B.A., UM ‘16, ***Goldwater Scholar,*** Current

position: Athena Health); **Yasir Naeem** (Hunter, BS ’18; Cliff Soll Award 2019, Emory University PhD ‘24); **Samer Nahme** (Undergraduate Student, NYU Abu Dhabi ’14); **Sam Peurifoy** (B.A., UM ’16, REU U. Washington, Seattle, 2014; RISE Fellowship, Germany, 2015; *Winner Clinton Global Initiative University Resolution Project Social Venture Challenge 2015*, highlighted *e-veritas* 13 April 2015, *NDSEG Fellowship: $108,000, 2016-2019, ACS Undergraduate Award in Organic Chemistry.* Current: Graduate Student,Department of Chemistry, Columbia University); **Sydur Rahman** (Undergraduate Student, NYU ’12, Dean’s Undergraduate Research Fellowship*, Johns Hopkins Medical School*, ‘17); **Angelica Rozenfeld** (Hunter, ’20, Current: Lake Erie College of Osteopathic Medicine); **David Scherr** (UM B. S. 2017, Current: Graduate Student, Biology, Virginia Tech); **Kevin Schesing** (Undergraduate, NYU ’12, 2012 Isidore Rubiner Award for outstanding undergraduate chemical research, Dean’s Undergraduate Research Fellowship, *Robert Wood Johnson New Jersey Medical School* ‘16); **Frank Schiro** (Hunter, BS, ’20; NY Department of Transportation); **Brian Schmatz** (Undergraduate, NYU ’13, Dean’s Undergraduate Research Fellowship; *Georgia Tech Chemistry PhD* ’18; BASF); **Milan Shlain** (Hunter, BS, ’18; 2018 Hunter Undergraduate Research Fellowship Awardee; UC Irvine PhD ’24); **Daniil Sosnin** (Hunter, BS ’19, Dartmouth College PhD ’24); **Alexa Wong** (Hunter, BS, ’18; McNair Scholar; 2018 Hunter Undergraduate Research Fellowship Awardee, Northwestern University, PhD ’24); **Yujia Zhou** (Foote Fellow, *Beyond the Book Summer Scholar 2016*, ***Goldwater Scholar 2016-2018****,* UM B. S. ’18; Current: *Northwestern University Medical School*); **Sylwia Zieba** (Undergraduate Student, NYU ’13, Current*: NYU Dental School*, ‘18)

Current Undergraduate: Rawan Aldasooky (Lehman College, BS ’20, REU summer 2018; REU Summer 2019); **Jacob Geldner** (Hunter ’20); **Dorian Pietraru** (Hunter, ’21; *Cliff Soll Service* Award); **Mohammed Abdelhamid** (Hunter, ’21); **Jaqueline Serrano** (Hunter ’21); **Samiha Uddin** (Hunter ’21); **Michelle Li** (Hunter ’21); **Manuel Lema** (Hunter ’20)

Past High School Students: Andres Flamenco (*ACS Project SEED*, East Side Community High School, NYC, Summer 2012); **Dorrell Fletcher** (Monsignor Edward Pace High School, Class of 2016 High School Student, self-assembly, *ACS Project SEED*); **William Gilmore** (*ACS Project SEED 2016,* Coral Reef High School Class of 2017); **Allen Li** (AEOP REAP); **Lance Helguero-Kelley** (Ransom Everglades HS, Class of 2016); **Gabriel Muro** (*ARO HSAP 2016,* Coral Reef High School, Class of 2017);**Moussa Niang** (ACS Project SEED 2017; The Beacon School; Hartwick College ‘22); **Daniel Rodriguez** (Hialeah Miami Lakes HS, Class of 2016); **Jhaneel Rose** (ACS Project SEED); **Clara Simmons** (*ARO HSAP* 2016, Ransom Everglades HS, Class of 2017); **Andrea Wenrich** (Ransom Everglades HS, Current: Stanford University BS ‘18); **Yujia Zhou** (Palmetto HS, Current: University of Miami BS 2018)

Past Visiting Scholars: Emilia Strandback (CHUST KTH Summer ’12 student)**, Karin Adolffson** (CHUST KTH Summer ’13 student); **Erik Bergendal** (CHUST KTH Summer ’13 student); **Magnus Larson** (CHUST KTH, Sweden M.S. ’13); **Allan Starkholm** (CHUST KTH Summer Student, ’14), **Zoe Ahmad Ataf (**CHUST KTH, Sweden, M.S. 2015); **Bjorn Schmidt** (CHUST KTH, Sweden, M. S. 2015), **Nicole Martel** (MDC, Summer ’15)