

AWARDS, HONORS, AND MEMBERSHIP

2024-29	Edward H. Kalajian Endowed Professorship
2025	CCE Faculty Excellence Award in Research
2024	Gordon L. Nelson Health Sciences Research Innovation Program
2023	ACS Orlando Section Outstanding Chemist Award
2023	Inducted into the honor society Phi Kappa Phi (ΦΚΦ)
2015-27	National Institutes of Health Award (NIGMS and NIMH)
2022	Bronze Medal for merit and contributions to the development of Palacký U.
2020-21	Gavel Award for dedicated service as Faculty Senate President
2018-19	Charles E. Helmstetter Award for Excellence in Research
2017	Rising Stars Certificate for outstanding contributions in Scholarly Research
2016-17	Kerry Bruce Clark Award for Excellence in Teaching
2016-17	Nominated for ISSO Award of Excellence for Service to International Students
2016	Selected by the Dean as a <i>Stellar Professor</i> of Florida Institute of Technology
2007	Student Affiliate section of ACS Faculty of the Year award
2001-present	American Chemical Society Member
1994-99	Faculty Fellowship for research, Chemistry Dept., Columbia University, NY
1995	<i>Phi Lambda Upsilon</i> : honorary chemical society, initiated as a member
1994	<i>Epsilon Sigma Pi</i> (highest academic honor society), Manhattan College, NY
1994	<i>Sigma Xi</i> scientific research society member
1994	John Vincent Mahony Medal in Chemistry, Manhattan College, NY

GRANT HISTORY (Total > \$1.7 M)

2024	Agency: Gordon L. Nelson Health Sciences Research Innovation Program Title: "Magnetically Guided Nanoparticles Bearing Photo-Cleavable Antitumor Agents for Precise Cancer Cell Targeting" Role: PI (with Eric Guisbert and Chris Bashur) \$17,000
2015-2027	Agency: NIH (total of nearly \$1,126,000) Title: "Development of Light Triggered Molecular Tools for Understanding the Brain's Network" Role: PI
2018-2019	Agency: Medical Research Grant, Community Foundation for Brevard Title: "Development of a cell-based assay to screen for small molecule inhibitors of HSF1 expression" Role: Co-PI (with Karen Kim and Eric Guisbert)
2014-2015	Agency: ACITC, Florida Tech Title: "Computational and Experimental Evaluation of Drug Interactions with Hosts" Role: PI (Sole)

- 2012-2017** **Agency:** NIH (collaborative with U. Arizona)
Title: "Synthesis of Deuterated Retinoids"
Role: Collaborator (PI: Michael F. Brown)
- 2011-2012** **Agency:** NASA
Title: "Development of Microcapsules for Space Applications"
Role: PI (Sole)
- 2011-2012** **Agency:** PARABEL
Title: "Development of Efficient Protein Isolation techniques"
Role: PI (Sole)
- 2011-2012** **Agency:** PetroAlgae
Title: "Biodiesel from Renewable Feedstock"
Role: PI (Sole)
- 2012** **Agency:** Thor Renewable Energy,
Title: "Developing Analytical Techniques"
Role: PI (Sole)
- 2006-2008** **Agency:** Florida Solar Energy Center
Title: "Developing Direct Techniques to Synthesize Light Absorbing Molecules"
Role: PI (Sole)
- 2007-2008** **Agency:** Intel Corporation
Title: "Residue Analysis on Silicon Wafers"
Role: PI
- 2007** Materials, Science and Nanotech Institute, FL Tech, "DART Mass Spectrometer Proposal for Infrastructure Enhancement"
Role: PI
- 2004-2006** NSF-NER (with J. A. Olson) "A Novel Biomimetic Molecular Photosensor: Fabrication of a Functional Nanodevice"
Role: co-PI
- 2004-2005** Florida Solar Energy Center (with J. A. Olson), "A Novel Biomimetic Molecular Photosensor"
Role: co-PI

https://scholar.google.com/citations?user=E_jVTUcAAAAJ&hl=en

For Graphical Abstracts and Links: <https://research.fit.edu/nesnas/publications/>

Names highlighted in **yellow** are FIT undergraduate students

1. Egodawaththa, Nishal M.; **Rajhel, Olivia**; Ma, Jingxuan, Guruge, Charitha, **Pabarue, Alec B.**; **Harris, Emily**; Peverati, Roberto; **Nesnas, Nasri** "Highly efficient Ca²⁺ chelation activated by visible light" *Org. Biomolec. Chem.* **2024**, 22 (35), 7194-7202.
2. Lorensu Hewage, Visal C.; Gunaratna, Medha J.; Egodawaththa, Nishal M.; **Nesnas, Nasri** "Synthesis and Anti-inflammatory Activities of 4-Arylidene-2-phenyloxazol-5(4H)-one Derivatives" *Asian J. Chem.* **2024**, 36 (8), 1872-1880.
3. Ma, Jingxuan; Egodawaththa, Nishal M.; Guruge, Charitha; **Valladares-Márquez, Oriana A.**; **Likes, Molly**, **Nesnas, Nasri** "Blue and green light responsive caged glutamate" *J. Photochem. Photobiol. A* **2024**, 447, 115183.
4. Shu, Ji; Wang, Kanming; Sharma, Virender K.; Xu, Xiping, **Nesnas, Nasri**; Wang, Hongyu "Efficient micropollutants degradation by ferrate (VI)-Ti/Zn LDH composite under visible light: Activation of ferrate (VI) and self-formation of Fe (III)-LDH heterojunction" *Chem. Eng. J.* **2023**, 456, 141127.
5. Egodawaththa, Nishal M.; Knight, Amy L.; Ma, Jinguxan; Knight, D. Andrew; Guisbert, Eric; **Nesnas, Nasri** "Synthesis and Characterization of Ligand-Stabilized Silver Nanoparticles and Comparative Antibacterial Activity against *E. coli*" *Int. J. Mol. Sci.* **2022**, 23, 23, 15251.
6. Klos, Dardan; Dušek, Michal; Samolová, Erika; Zatloukal, Marek; Nožková, Vladimíra; **Nesnas, Nasri**; Plačková, Lenka; Koprna, Radoslav; Spíšek, Zdeněk, Vylíčilová, Hana; Plíhal, Ondřej; Doležal, Karel; Voller, Jiří; Kadlecová, Alena; Strnad, Miroslav; Plíhalová, Lucie "New Water-Soluble Cytokinin Derivatives and Their Beneficial Impact on Barley Yield and Photosynthesis" *J. Agric. Food Chem.* **2022**, 70, 7288-7301.
7. El Kateb, Marwa; Trelu, Clément; Oturan, Nihal; Bellakhal, Nizar; **Nesnas, Nasri**; Sharma, Virender K.; Oturan, Mehmet A. "Ferrate (VI) pre-treatment and subsequent electrochemical advanced oxidation processes: Recycling iron for enhancing oxidation of organic pollutants" *Chem. Eng. J.* **2022**, 431, 134177.
8. Wang, Kanming; Shu, Ji; Sharma, Virender K.; Liu, Cong, Xu, Xiping; **Nesnas, Nasri**; Wang, Hongyu "Unveiling the mechanism of imidacloprid removal by ferrate (VI): Kinetics, role of oxidation and adsorption, reaction pathway and toxicity assessment" *Sci. Total Environ.* **2022**, 805, 150383.
9. Morgante, Pierpaolo; Guruge, Charitha; Ouedraogo, Yannick P.; **Nesnas, Nasri**; Peverati, Roberto "Competition Between Cyclization and Unusual Norrish Type I and Type II Nitro-Acyl Migration Pathways in the Photouncaging of 1-Acyl-7-nitroindoline Revealed by Computations" *Scientific Reports* **2021**, 11, 1396. *ChemRxiv.* **2020**, 19.08.2020.
10. Zhang, Xianbing; Feng, Mingbao; Luo, Cong; **Nesnas, Nasri**; Huang, Ching-Hua; Sharma, Virender K. "Effect of Metal Ions on Oxidation of Micropollutants by

- Ferrate(VI): Enhancing Role of Fe^{IV} Species” *Environ. Sci. Technol.* **2021**, *55* (1), 623-633.
11. Zeigler, Eric W.; Brown, Alan B.; **Nesnas, Nasri**; Chouinard, Chris; Mehta, Anil K.; Palmer, Andrew G. “β-Cyclodextrin encapsulation of synthetic AHLs: drug delivery implications and quorum-quenching exploits” *ChemBioChem* **2020**, *22* (7), 1292-1301.
 12. Zhu, Ming-Hui; Yu, Chen-Long; Feng, Ya-Lan; Usman, Muhammad; Zhong, Dayou; Wang, Xin; **Nesnas, Nasri**; Liu, Wen-Bo “Detosylative (Deutero)alkylation of Indoles and Phenols with (Deutero)alkoxides” *Org. Lett.* **2019**, *21*, 7073-7077.
 13. Sun, Xuhui; Feng, Mingbao; Dong, Shuyu; Qi, Yuan; Sun, Lin; **Nesnas, Nasri**; Sharma, Virender K. “Removal of sulfachloropyridazine by ferrate(VI): Kinetics, reaction pathways, biodegradation, and toxicity evaluation” *Chem. Eng. J.* **2019**, *372*, 742-751.
 14. Ziegler, Eric W.; Brown, Alan B.; **Nesnas, Nasri**; Palmer, Andrew G. “Modeling the abiotic hydrolysis of *N*-acyl-L-homoserine lactones: Natural silencing of bacterial quorum sensing signals” *Eur. J. Org. Chem.* **2019**, *2019*, 2850-2856.
 15. Guruge, Charitha; Rfaish, Saad Y.; **Byrd, Chanel, Yang, Shukun**, Starrett, Anthony K.; Guisbert, Eric; **Nesnas, Nasri** “Caged Proline in Photoinitiated Organocatalysis” *J. Org. Chem.* **2019**, *84*, 5236-5244.
 16. Feng, Minbao; Baum, Clayton; **Nesnas, Nasri**; Lee, Yunho; Huang, Ching-Hua; Sharma, V. K. “Oxidation of sulfonamide antibiotics of six-membered heterocyclic moiety by ferrate(VI): Kinetics and mechanistic insight into SO₂ extrusion” *Environ. Sci. Technol.* **2019**, *53*, 2695-2704.
 17. Navidi, Mozghan; **Yadav, Shreya**; Struts, Andrey V.; Brown, Michael F.; **Nesnas, Nasri** “Synthesis of 9-CD₃-9-*cis*-Retinal Cofactor of Isorhodopsin” *Tetrahedron Lett.* **2018**, *58*, 4521-4524.
 18. Chen, Jing; Xu, Xinxin; Zeng, Xiaolan; Feng, Mingbao; Qu, Ruijuan; Wang, Zunyao; **Nesnas, Nasri**; Sharma, Virender K. “Ferrate(VI) oxidation of polychlorinated diphenyl sulfides: Kinetics, degradation, and oxidized products” *Waters Res.* **2018**, *143*, 1-9.
 19. Guruge, Charitha; Ouedraogo, Yannick P.; Comitz, Richard L.; Ma, Jingxuan; Losonczy, Attila; **Nesnas, Nasri** “Improved Synthesis of Caged Glutamate and Caging Each Functional Group” *ACS Chem. Neurosci.* **2018**, *9*, 2713-2721.
 20. Proni, Gloria; Cohen, Peter; Huggins, Lesley-Ann; **Nesnas, Nasri** “Comparative analysis of condom lubricants on pre & post-coital vaginal swabs using AccuTOF-DART” *Forensic Sci. Intl.* **2017**, *280*, 87-94.
 21. Liu, Wen-Bo; Schuman, David P.; Toutov, Anton A.; Yang, Yun-Fang; Liang, Yong; Klare, Hendrik F. T.; **Nesnas, Nasri**; Oestreich, Martin; Virgil, Scott C.; Banerjee, Shibdas; Zare, Richard N.; Houk, K. N.; Grubbs, Robert H.; Stoltz, Brian M. “KOT-Bu-Catalyzed Dehydrogenative C–H Silylation of Heteroaromatics: A Combined Experimental and Computational Mechanistic Study” *J. Am. Chem. Soc.* **2017**, *139* (20), 6867-6879.
 22. Comitz, Richard L.; Ouedraogo, Yannick P.; **Nesnas, Nasri** “Unambiguous evaluation of the relative photolysis rates of nitro indolyl protecting groups critical for brain network studies” *Anal. Chem. Res.* **2015**, *3*, 20-25.

23. Ouedraogo, Yannick P.; Huang, Longchuan; **Torrente, Mariana P.**; Proni, Gloria; Chadwick, Ekaterina; Wehmschulte, Rudolf; **Nesnas, Nasri** "A direct Stereoselective Preparation of a Fish Pheromone and Application of the Zinc Porphyrin Tweezer Chiroptical Protocol in Its Stereochemical Assignment" *Chirality* **2013**, *25*, 575-581.
24. Sharma, Virender K.; Sohn, Mary; Anquandah, George A. K.; **Nesnas, Nasri** "Kinetics of the oxidation of sucralose and related carbohydrates by ferrate(VI)" *Chemosphere* **2012**, *87*(6), 644-648.
25. Kpegba, Kafui; Agbonon, Amegnona; Petrovic, Ana G.; Amouzou, Etchri; Gbeassor, Messanvi; Proni, Gloria; **Nesnas, Nasri** "Epiatzelechin from the root bark of *Cassia sieberiana*: detection by DART mass spectrometry, spectroscopic characterization, and antioxidant properties" *J. Nat. Prod.* **2011**, *74*(3), 455-459.
26. Sharma, Virender K.; Anquandah, George; **Nesnas, Nasri** "Kinetics of the Oxidation of Endocrine Disruptor Nonylphenol by Ferrate(VI)" *Environ. Chem. Lett.* **2009**, *7* (2), 115-119.
27. Sharma, Virender K.; Noorhasan, Nadine N.; Mishra, Santosh K.; **Nesnas, Nasri** "Ferrate(VI) oxidation of reductant compounds: removal of biological resistant organic molecules by ferrate(VI)" *ACS Symposium Series* **2008**, *985*, 339-349.
28. Kpegba, Kafui; **Spadaro, Tycho**; Cody, Robert B.; **Nesnas, Nasri**; Olson, Joel A. "Analysis of Self-Assembled Monolayers on Gold Surfaces Using Direct Analysis in Real Time Mass Spectrometry" *Anal. Chem.* **2007**, *79*(14), 5479-5483.
29. Matsuda, Hiroko; Zhang, Shenglong; Holmes, Andrea E.; Krane, Sonja; Itagaki, Yasuhiro; Nakanishi, Koji; **Nesnas, Nasri** "Synthesis of 11-cis-locked-biotinylated retinoid for sequestering 11-cis retinoid binding proteins" *Can. J. Chem.* **2006**, *84*(10), 1363-1370.
30. Sharma, Virender K.; Mishra, Santosh K.; **Nesnas, Nasri** "Oxidation of Sulfonamide Antimicrobials by Ferrate(VI) [$\text{Fe}^{\text{VI}}\text{O}_4^{2-}$]" *Environ. Sci. Technol.* **2006**, *40* (23), 7222-7227.
31. Tewari, Brij B.; **Shekar, Sukesh**; Huang, Longchuan; Gorrell, Carolyn E.; Murphy, Timothy P.; Warren, Kevin; **Nesnas, Nasri**; Wehmschulte, Rudolf J. "Aluminumoxyhydride: Improved Synthesis and Application as a Selective Reducing Agent" *Inorg. Chem.* **2006**, *45*(21), 8807-8811.
32. Kpegba, Kafui; **Murtha, Matthew**; **Nesnas, Nasri** "Cyclodextrin retinylidene: A biomimetic kinetic trap model for rhodopsin" *Bioorg. Med. Chem. Lett.* **2006**, *16* (6), 1523-1526.
33. Jahng, Wan J.; David, Charles; **Nesnas, Nasri**; Nakanishi, Koji; Rando, Robert R. "A Cleavable Affinity Biotinylating Agent Reveals a Retinoid Binding Role for RPE65" *Biochemistry* **2003**, *42*(20), 6159-6168.
34. Zemelman, Boris V.; **Nesnas, Nasri**; Lee, Georgia A.; Miesenböck, Gero "Photochemical Gating of Heterologous Ion Channels: Remote Control over Genetically Designated Populations of Neurons" *Proc. Nat. Acad. Sci. USA* **2003**, *100* (3), 1352-1357.
35. **Nesnas, Nasri**; Rando, Robert R.; Nakanishi, Koji "Synthesis of Biotinylated Retinoids for Cross-Linking and Isolation of Retinol Binding Proteins" *Tetrahedron*, **2002**, *58*, 6577-6584.

Publications Prior to Employment at FIT

36. Kurtán, Tibor; **Nesnas, Nasri**; Li, Yuan-Q.; Huang, Xuefei; Nakanishi, Koji; Berova, Nina "Chiral Recognition by CD-Sensitive Dimeric Zinc Porphyrin Host. 1. Chiroptical Protocol for Absolute Configurational Assignments of Monoalcohols and Primary Monoamines" *J. Am. Chem. Soc.* **2001**, *123*, 5962-5973.
37. Kurtán, Tibor; **Nesnas, Nasri**; Koehn, Frank E.; Li, Yuan-Q.; Nakanishi, Koji; Berova, Nina "Chiral Recognition by CD-Sensitive Dimeric Zinc Porphyrin Host. 2. Structural Studies of Host-Guest Complexes with Chiral Alcohol and Monoamine Conjugates" *J. Am. Chem. Soc.* **2001**, *123*, 5974-5982.
38. **Nesnas, Nasri**; Lou, Jihong; Breslow, Ronald "The Binding of Cocaine to Cyclodextrins" *Bioorg. Med. Chem. Lett.* **2000**, *10*, 1931-1933.
39. Breslow, Ronald; **Nesnas, Nasri** "Burst Kinetics and Turnover in an Esterase Mimic" *Tetrahedron Lett.* **1999**, *40*, 3335-3338.

PATENTS AND LICENSES

- 2024** Caged Glutamate Unleashed by Blue and Green Light: Innovative Photosensitive control, USPTO (Feb. 12, 2024)
- 2010-2020** Tocris Biosciences (UK): License agreement for improved process to synthesize CDNI-Glu.

PUBLISHED CONFERENCE ABSTRACTS

1. Asemani, M.; **Welsh, D.; Harris, E.; Clary, P.**; Nesnas, N. Visible light responsive caged GABA. 2024; American Chemical Society. DOI:10.1021/scimeetings.4c10469.
2. Egodawaththa, N. M.; Ma, J.; Guruge, C.; **Rajhel, O. M.; Pabarue, A. B.; Harris, E.**; Peverati, R.; Nesnas, N. Visible-light-activated calcium ion chelation with high efficiency. 2024; American Chemical Society. DOI: 10.1021/scimeetings.4c10375.
3. **Rajhel, O.**; Egodawaththa Arachchilage Don, N. M. M.; van Hoekelen, A.; Klos, D.; Ambrosini, A.; Peverati, R.; Nesnas, N. Effects of the proximity of nitro groups in the photocages of carbonyls. 2024; American Chemical Society. DOI: 10.1021/scimeetings.4c10665.
4. **Yaseen, S.; Mekic, N.**; Egodawaththa, N. M.; **Rajhel, O.**; Babaee, S.; Coppola, A.; Nesnas, N. Photoswitchable azo compounds for calcium chelation. 2024; American Chemical Society. DOI: 10.1021/scimeetings.4c10526.
5. **Nesnas, Nasri** "Illuminating pathways: Light activated processes for neurological applications" Abstracts of Papers, 257th ACS National Meeting & Exposition, New Orleans, LA, United States, Mar. 17-21, **2024**, ORGN
6. **Nesnas, Nasri** "Light Receptive Molecules and their Precise Control of the Brain, Infections, and More" Abstracts of Papers, 257th ACS National Meeting & Exposition, Orlando, FL, United States, Mar. 31-Apr. 4, **2019**, BIOL-0197
7. Ziegler, Eric W.; **Nesnas, Nasri**; Brown, Alan B.; Palmer, Andrew G. "Quantitative determination of abiotic AHL hydrolysis by ¹H NMR" Abstracts of Papers, 257th

- ACS National Meeting & Exposition, Orlando, FL, United States, Mar. 31-Apr. 4, **2019**, BIOL-0065
8. Navidi, Mozghan; **Yadav, Shreya**; Struts, Andrey; Brown, Michael F.; **Nesnas, Nasri** "Total synthesis of 9-CD₃-9-cis-retinal for studying vision" Abstracts of Papers, 257th ACS National Meeting & Exposition, Orlando, FL, United States, Mar. 31-Apr. 3, **2019**, ORGN-0211
 9. Guruge, Charitha; Ouedraogo, Yannick P.; Comitz, Richard L.; Ma, Jingxuan, **Pabarue, Alec B.**; Losonczy, Attila; **Nesnas, Nasri** "Improved synthesis of the dinitroindolyl cage (CDNI) and its application in neuroscience and beyond" Abstracts of Papers, 257th ACS National Meeting & Exposition, Orlando, FL, United States, Mar. 31-Apr. 3, **2019**, BIOL-0217
 10. Struts, Andrey V.; Ryazantsev, Mikhail N.; Xu, Xiaolin ; Molugu, Trivikram R.; Perera, Suchithranga M.D.C.; Guruge, Charitha; Faylough, Samira; **Nascimento, Carolina**; Nesnas, Nasri; Brown, Michael F. "Retinal Flipping During Rhodopsin Activation Revealed by Solid State 2H NMR and QM/MM Simulations" *Biophys. J.* **2019**, *116* (3), 204a.
 11. Xu, Xiaolin; Struts, Andrey V.; Giri, Aswini K.; Molugu, Trivikram R.; Guruge, Charitha; Faylough, Samira; **Nascimento, Carolina L.**; **Nesnas, Nasri**; Hruby, Victor J.; Brown, Michael F. "Dynamics of Membrane Proteins Studied by Solid State 2H NMR Relaxation" *Biophys. J.* **2018**, *114* (3), 242a.
 12. Struts, Andrey V.; Xu, Xiaolin; Giri, Aswini K.; Molugu, Trivikram R.; Pitman, Michael; Faylough, Samira; Guruge, Charitha; **Nascimento, Carolina L.**; **Nesnas, Nasri**; Brown, Michael F. "Activation of GPCR Rhodopsin Investigated by Solid-State NMR Spectroscopy" *Biophys. J.* **2017**, *112* (3), 508a.
 13. **Nesnas, Nasri**; Guruge, Charitha; Rfaish, Saad Y.; **Yang, Shukun**; **Byrd, Chanel**; Starrett, Anthony K.; Guisbert, Eric "Caged Proline as a Light Triggered Organocatalyst" *18th Tetrahedron Symposium: New Developments in Organic Chemistry – Budapest* June 29, **2017**.
 14. Xu, Xiaolin; Struts, Andrey V.; Giri, Aswini K.; Molugu, Trivikram R.; Guruge, Charitha; Faylough, Samira; **Nascimento, Carolina L.**; **Nesnas, Nasri**; Hruby, Victor J.; Brown, Michael F. "Dynamics of Methyl Groups in Membrane Proteins Studied by Deuterium Solid State NMR relaxation" *Biophys. J.* **2016**, *110* (3), s1, 73a.
 15. Struts, Andrey V.; Xu, Xiaolin; Giri, Aswini K.; Molugu, Trivikram R.; Pitman, Michael; Faylough, Samira; Guruge, Charitha; **Nascimento, Carolina L.**; **Nesnas, Nasri**; Brown, Michael F. "Retinal Chromophore Structure in Meta-II Rhodopsin Revealed by Solid-State 2H NMR and Molecular Modeling" *Biophys. J.* **2016**, *110* (3), 229a.
 16. Xu, Xiaolin; Struts, Andrey V.; Giri, Aswini K.; Molugu, Trivikram R.; Guruge, Charitha; Faylough, Samira; **Nascimento, Carolina L.**; **Nesnas, Nasri**; Hruby, Victor J.; Brown, Michael F. "Solid-State 2H NMR Investigation of Transducin Activation by Rhodopsin" *Biophys. J.* **2015**, *108* (2), Suppl. 1, 411a.
 17. **Nesnas, Nasri**; Comitz, Richard L.; Youedraogo, Yannick P. "Evaluation of photoactive cleavable neurotransmitters in the elucidation of neural networks" Abstracts of Papers, 248th ACS National Meeting & Exposition, San Francisco, CA, United States, August 10-14, **2014**, MEDI-127.

18. Cohen, Peter J.; **Nernas, Nasri** "Rapid algal biofuel quality prediction using Direct Analysis in Real Time mass spectrometry" Abstracts, 63rd Southeast Regional Meeting of the American Chemical Society, Richmond, VA, United States, October 26-29, **2011**, SERM-316.
19. Proni, Gloria; Huang, Longchuan; Ouedraogo, Yannick; **Plazas-Mayorca, Mariana D.**; **Albin, Karissa**; Petrovic, Ana G.; Chadwick, Ekaterina; Berova, Nina D.; Wehmschulte, Rudolf J.; **Nernas, Nasri** "Synthesis and chiral recognition of a fish pheromone by CD-sensitive dimeric zinc porphyrin host" Abstracts of Papers, 236th ACS *National Meeting*, Philadelphia, PA, United States, August 17-21, **2008**, ORGN-631.
20. Chadwick, Ekaterina; Proni, Gloria; Petrovic, Ana G.; Berova, Nina; Huang, Longchuan; Ouedraogo, Yannick; **Plazas-Mayorca, Mariana D.**; **Albin, Karissa**; Wehmschulte, Rudolf J.; **Nernas, Nasri** "Absolute Configuration Determination of a Biologically Active Diol" Abstracts, 40th Middle Atlantic Regional Meeting of the American Chemical Society, Queens, NY, United States, May 17-21, **2008**, MRM-128.
21. Sharma, Virender K.; Noorhasan-Smith, Nadine; Mishra, Santosh K.; **Nernas, Nasri** "Ferrate(VI) oxidation of recalcitrant organic compounds" Abstracts of Papers, 232nd ACS *National Meeting*, San Francisco, CA, United States, Sept. 10-14, **2006**, ENVR-059.
22. Franck, Diana R.; **Nernas, Nasri**; Nakanishi, Koji "Synthesis of (+/-)-11-cis-3-hydroxyretinal and studies directed toward enantiomeric resolution" Abstracts of Papers, 221st ACS *National Meeting*, San Diego, CA, United States, April 1-5, **2001**, CHED-296.

LETTERS

1. Olson, Joel A. and **Nesnas, Nasri** “Mass Spectrometry Application” *Chem. Eng. News* **2007**, December 3rd issue page 6.

BOOK CHAPTERS

1. Schuman, David; Liu, Wen-Bo; **Nesnas, Nasri**; Stoltz, Brian M. “Transition-Metal-Free Catalytic C–H Bond Silylation” in *Organosilicon Chemistry: Novel Approaches and Reactions* **2019**, 213–240, WILEY-VCH.
2. Sharma, Virender K.; Noorhasan-Smith, Nadine; Mishra, Santosh K.; **Nesnas, Nasri** “Ferrate(VI) oxidation of recalcitrant organic compounds.” *Preprints of Extended Abstracts presented at the ACS National Meeting, American Chemical Society, Division of Environmental Chemistry* **2006**, 46(2), 611–615.
3. **Nasri Nesnas** “Catalysis of Organic Reactions in Water: Nature’s Choice of Solvent” Chapter 14 in *How Science Can Support Environmental Protection?* Florida Tech-BME Partnership Programme Yearbook **2003** Edited by Gordon L. Nelson and Imre Hronszky, Budapest, Hungary.

MEDIA COVERAGE

- 2023** Spearheaded efforts for a partnership between Florida Tech and University of Palacký Olomouc, Czech Republic culminating in an MoU signed October 2023.
<https://news.fit.edu/academics-research/florida-tech-signs-memorandum-of-understanding-with-czech-university/>
- 2021** Featured in neuroscience news:
<https://neurosciencenews.com/light-neurons-17889/>
- 2018** Appeared on Channel News 13 describing tools that enable Brain Mapping
<https://www.facebook.com/nesnas/videos/10160612953985304/>
<https://www.mynews13.com/fl/orlando/news/2018/08/07/florida-tech-study-shines-light-on-alzheimer-s-disease>
- 2018** Appeared in Brevard Hometown News for the development of Brain Mapping Tools
http://www.hometownnewsbrevard.com/news/florida-tech-provides-new-brain-mapping-techniques/article_08977d72-89f2-11e8-898e-abdc5a52ff5d.html
<http://ufdcimages.uflib.ufl.edu/UF/00/08/12/29/00605/07-20-2018.pdf>
- 2018** Research highlighted in Medical Xpress
<https://medicalxpress.com/news/2018-07-tools-brain-boost-depression-dementia.html>
- 2006** Appeared in Florida Today paper for the latest in Mass Spec making Florida Tech 1st of the research institutions in US to acquire this technology
- 2005** Appeared in Florida Today for a “magical” dedication of the FW Olin Physical Science Building

OTHER PUBLISHED WORK

- 2017** “Sharing Chemistry Across Continents” by **Nasri Nesnas**, edited by Shelley Preston
https://adastra.fit.edu/blog/research/nasri_nesnas/

INVITED LECTURES

- 2024 Larkin University, Miami, FL (Nov 8), **Keynote Address**
- 2024 University of Palacký in Olomouc, Czech Republic (June 27)
- 2023 Florida Institute of Technology, Melbourne, FL (Nov 16)
- 2023 University of Palacký in Olomouc, Czech Republic (June 26)
- 2022 University of Palacký in Olomouc, Czech Republic (June 8)
- 2020 Southeastern University, Lakeland, FL (Feb 27)
- 2019 LifeLong Scholar Society, FIT "Shining a Light on the Brain" (November 14)
- 2019 ACS National Awards: Breslow and Nakanishi (Orlando, FL, April 2)
- 2018 Lifelong Scholar FIT, "What Lies Behind the Eyes: from Perception to Cognition"
- 2017 Institute of Chemistry, Chinese Academy of Sciences, Beijing, China (Sept. 20)
- 2017 Zhejiang University, Hangzhou, China (Sept. 17) – top 20th world ranking US NWR
- 2017 Wuhan University, Wuhan, China (Sept. 15)
- 2017 Nanjing University, Nanjing, China (Sept. 12)
- 2017 Alquds University, Abu Dis, Palestine (Aug. 1)
- 2017 Weizmann Institute of Science, Rehovot, Israel (July 11) – top 100 world ranking
- 2017 University of Pisa, Italy, **Plenary Lecture** *Chemistry for the Future Conf.* (July 6)
- 2017 18th Tetrahedron Symposium Budapest, Hungary (June 29)
- Opening Lecture for Keynote Speaker 2016 Chemistry Nobel Laureate Feringa**
- 2017 University of Arizona, Tucson, AZ (May 15)
- 2017 John Jay College of Criminal Justice, NY (May 10)
- 2016 City University of NY, Brooklyn College, NY
- 2013 Columbia University Nakanishi 88th Birthday Symposium, NY
- 2013 University of Palacký in Olomouc, Czech Republic
- 2012 California Institute of Technology IPS conference, Pasadena, CA
- 2012 University of Bologna, ITALY – **The oldest university in the world.**
- 2011 Sanford-Burnham Medical Research Institute, Orlando, FL
- 2011 OFF conference, Scripps, Jupiter, FL
- 2010 University of Florida, Gainesville, FL
- 2009 Florida International University, Miami, FL
- 2009 Brigham Young University, Provo, UT
- 2008 Seton Hall University, NJ
- 2006 University at Tampa, FL
- 2006 Biology Department, Florida Tech, Melbourne, FL Tech
- 2006 Council for Chemical Research (CCR) Meeting in Orlando, FL
- 2005 OFF conference (Organic Faculty of Florida), UCF, Orlando, FL
- 2004 Daytona Beach Community College, Daytona Beach, FL
- 2004 Nova Southeastern University, Ft. Lauderdale-Davie, FL
- 2004 Florida International University, Miami, FL
- 2004 Barry University, Miami, FL
- 2002 Manhattan College, Riverdale, NY
- 2002 University of North Carolina, Wilmington, NC
- 2002 Dartmouth College, Hanover, NH
- 2002 Florida Institute of Technology, Melbourne, FL

- 2002** City University of New York, Queens College, NY
- 2002** California State University, Los Angeles, CA
- 2002** University of Miami, Coral Gables, FL
- 2001** Columbia University, NY, Wyeth Symposium
- 1999** Columbia University, NY, Industrial Associates Program Symposium
- 1999** University of Pennsylvania, Philadelphia, PA

PANEL INVITATION

- 2010** Florida Solar Energy Center: Renewable Energy and Biofuels

RESEARCH EXPERIENCE

Current Areas of Research

1. **Neuroscience:** Design of neurological tools for the study of brain circuitry
2. **Vision:** Synthesis of visual pigments and their study in the native protein opsin
3. **Light Absorbing Molecules:** Design of molecular photosensors
4. **Natural Products:** Isolation and characterization of bioactive natural products
5. **Mass Spec:** Pheromones studies, Forensic analyses
6. **Synthetic Methodologies:** direct silylations (w. Stoltz, Caltech)

Mass Spectrometry

Responsible for securing internal funding that brought in state-of-the-art Mass Spectrometric technologies, namely, **DART** (Direct Analysis in Real Time), to Florida Institute of Technology, making the university the first research and Ph.D.-granting institution to acquire such Award winning (Pittcon Gold Award in 2005) technology. Establishing this capability spun off new research areas that resulted in several published ACS manuscripts and submitted proposals.

TEACHING EXPERIENCE

Undergraduate Classes:

- 2003-present** CHM 2001 Organic Chemistry I (enrollment: 30-52 students)
2002-present CHM 2002 Organic Chemistry II (enrollment: 29-38 students)
2004-2010 CHM 2011 Organic Chemistry Lab I (5 sections of 18 students/year)
2004-present CHM 2012 Organic Chemistry Lab II (5 sections of 18 students/year)
2010-present CHM 4700 Physical Biochemistry (Developed by Nesnas)

Graduate Classes:

- 2005-present** CHM 5507 Natural Products Chemistry (enrollment: 4-9 students)
2006-present CHM 5508 Bioorganic Chemistry (enrollment: 8-14 students)
2009-2015 CHM 5201 Green Chemistry (enrollment: 8-15 students)
2018-present CHM 5503 Organic Synthesis (enrollment: 10 students)

Curriculum Development:

- 2011** Introduced the non-thesis Masters option in 2011
2010 Introduced the Masters in Biochemistry program

<http://www.ratemyprofessors.com/ShowRatings.jsp?tid=612698>

SERVICE EXPERIENCE

- Serving on the University College Faculty Promotion and Tenure Committee (**UCFPT**)
- Serving on the Technology Research Infrastructure Committee of the Senate
- **Chair of the ACS Orlando Section Awards committee** (Jan 2024)
- **Past President of the Faculty Senate** (April 2021-April 2022)
- **President of the Faculty Senate** (April 2020-April 2021)
- **President-Elect** of the Faculty Senate (April 2019-April 2020)
- Served on the Faculty Senate 2017-2018, 2019-2022
- **Chair of the AFTC** (Academic Freedom and Tenure Committee) April 2019-August 2022
- Serving on the **Red Team** as an internal reviewer of NSF MRI proposals
- **Chair** of the Research Council 2017-2020
- **Tenure Exploration Committee** (April 2017-October 2018)
- On the Advisory Board for CCM (Catholic Campus Ministry)
- Serving as the faculty advisor for the Shik Shak Belly Dance Club
- Serving on Research Council 2016-2020
- Served on doctoral and masters committees for over 65 students
- Served as academic advisor for all biochemistry undergraduates and graduates
- Served on the graduate council
- Served on various Faculty Search Committees
- Served on the university library committee
- Seminar coordinator
- Coordinator of the Distinguished A. H. Blatt Lecture Series hosting leaders in organic chemistry including Nobel Laureates
- Served as a Judge for the Northrup Grumman COE COS Showcase
- Participated in fundraising activities for Relay for Life including music and magic acts
- Curriculum and program plan revision for graduate biochemistry
- Prepared graduate student guidelines and flowcharts
- Maintained the ACS Directory of Graduate Research (2003-2015)
- Department photographer for new incoming students (2006-2014)
- Performed Magic and French guitar music at the Physics Talent Show
- Demonstrated chemistry and magic at Mole Days (6:02 pm on October 23)
- Volunteered with **Magical Demonstration**: Olin Physical Building dedication, Ortega Telescope dedication, Fundraising event, and Florida Tech Casino night 2017
2005 F.W. Olin Physical Sciences dedication: <https://youtu.be/bbLm-okoaMg>
2008 Ortega Telescope dedication: <https://youtu.be/5nkSzqLMjMg>
- Served as a reviewer for several journals including: Chirality, Bioorg. Med. Chem., Nature Publishing Group, and ACS journals
- Served as a reviewer on ACS proposals

OUTREACH

- ACS Orlando section: co-organized outreach events for a broader dissemination of green chemistry and alternative energy
- Communicated Science through Mass Spec and/or Magic demos to local High Schools at an annual event at Florida Tech: LASER (Liberal Arts, Science, and Engineering Resource) Day
- Actively involved High School students in research and science fair projects – One placed 2nd in the Intel ISEF competition
- Informed the local community about the current research in understanding the brain at a Science Café and presented a lecture at a local middle school (Stone Middle School)

COLLABORATORS AND COAUTHORS

- | | |
|--------------------------------|--|
| • Attila Losonczy, M.D., Ph.D. | Columbia University, NY |
| • Brian M. Stoltz, Ph.D. | California Institute of Technology |
| • Michael F. Brown, Ph.D. | University of Arizona, AZ |
| • Brian Paegel, Ph.D. | Scripps Research, Jupiter, FL |
| • Gloria Proni, Ph.D. | John Jay School of Criminal Justice, NY |
| • Shimon Ben-Shabat, Ph.D. | Ben Gurion University of the Negev, Israel |
| • Lucie Plíhalová, Ph.D. | U. of Palacký in Olomouc, Czech Republic |
| • Gennaro Pescitelli, Ph.D. | Univerisità di Pisa, Italy |
| • Virender K. Sharma, Ph.D. | Texas A&M, College Station, TX |
| • Roberto Peverati, Ph.D. | Florida Institute of Technology, FL |
| • Rudolf J. Wehmschulte, Ph.D. | Florida Institute of Technology, FL |
| • Alan B. Brown, Ph.D. | Florida Institute of Technology, FL |
| • Andrew Palmer, Ph.D. | Florida Institute of Technology, FL |
| • Eric Guisbert, Ph.D. | University of Nebraska, Omaha, NE |
| • Karen Kim Guisbert, Ph.D. | University of Nebraska, Omaha, NE |

CURRENT AND FORMER LAB PERSONNEL

Research Professors and Visiting Scholars

Ms. Kafui Kpegba, Ph.D., Visiting Research Professor (Togo, Africa)
Ms. Pilar Hernández Sánchez, Universidad Católica de Murcia, Spain
Ms. Magdaléna Bryksová, Palacky University, Olomouc, Czech Republic
Mr. Dardan Klos, Palacky University, Olomouc, Czech Republic

Graduate Students

Name	Degr.	Year	Subsequent Education	Currently	Note(s)
Julian Vlad	Ph.D.	2029			Current student
D. Lund	Ph.D.	2029			Current student
Sarah Yaseen	Ph.D.	2029			Current student
Victor Johnson	Ph.D.	2028			Current student
Marjan Asemani	Ph.D.	2026			Current student
Nishal Egodawaththa	Ph.D.	2024			Current student
Mr. Jingxuan Ma	Ph.D.	2020			Industry/China
Ms. Mozhgan Navidi	Ph.D.	2019		Sr. Res. Curia	Prev. Intel
Mr. Charitha Guruge	Ph.D.	2019		Sci.: Prime Med.	
Ms. Samira Faylough	Ph.D.	2017		Education	co-adv. w Knight
Ms. Hui Xie	Ph.D.	2014		Patent Law	MS in 2005 (below)
Mr. Peter J. Cohen	Ph.D.	2013	NYU, Stony Brook	Consulting	Cohen Consulting
LTC. Richard L. Comitz	Ph.D.	2013		Professor	West Point, NY
Mr. Yannick Ouedraogo	Ph.D.	2012	Postdoc (J. Rokach)	Intel Corp.	Portland, OR
Ms. Rui Guo	Ph.D.	2010		Novartis	China
Abraham Irizarry	M.S.	2024			
Antonella Ambrosini	M.S.	2023		Orlando Science	
Alexandriea van Hoekelen	M.S.	2022		Industry, Chicago	
Ms. Jennifer Saba	M.S.	2019	UCF		
Ms. Nicole Roberson	M.S.	2019			
Ms. Amaal Altalhi	M.S.	2017			
Ms. Temitope Sokefun	M.S.	2017			
Mr. Cen Tao	M.S.	2017			
Ms. Surintra Lahwong	M.S.	2017			
Mr. Anthony K. Starrett	M.S.	2016			
Mr. Saad Rfaish	M.S.	2016	Ph.D. Australia	Thesis	
Ms. Shuqi Xiao	M.S.	2016			
Ms. Mohrah Albalawi	M.S.	2014			
Ms. Tammy Bilak Bron	M.S.	2013			
Ms. Rabab Alahrish	M.S.	2012			
Mr. Peter J. Cohen	M.S.	2012	Ph.D. (Nesnas)		
Mr. Yannick Ouedraogo	M.S.	2011	Ph.D. (Nesnas)		
Mr. Shih-Chang Wu	M.S.	2009	Industry	Thesis	Canada
Ms. Longchuan Huang	M.S.	2006	Ph.D. (Katritzky, UF)	Thesis	Postdoc (Amos Smith)
Ms. Hui Xie	M.S.	2005	Ph.D. (Nesnas)	Thesis	

Undergrad. Students

Angelina Gaffey	B.S.	2027			Current
Luke Potter	B.S.	2027			Current
TJ Cataloni	B.S.	2026			Current
Presley Clary	B.S.	2026			Current
Nikola Mekic	B.S.	2025			Current
Sarah Yaseen	B.S.	2024			PhD student NN grp

Daniel Welsh	B.S.	2024			D.O. School
Olivia Rajhel	B.S.	2025			Current
Emily Harris	B.S.	2023			Current
Olivia Baldino	B.S.	2024			
Nathaniel Allen	B.S.	2024			
Caylin Lepak	B.S.	2023			
Oriana Valladarez Marquez	B.S.	2020			
Mohammed Ahmed	B.S.	2020			
Molly Likes	B.S.	2021		Summers only	Enrolled at Wellesley
Comfort Mboge	BS	2019			MS Student FIT
Alec Pabarue	B.S.	2019	PhD Prg. GA Tech		
Kilsia Merced Gonzaley	B.S.	2019	University of Colorado	Gates Biomanuf.	Associate research
Ms. Shreya Yadav	B.S.	2017	Scripps Research		Research Assoc.
Mr. Zihan Xu	B.S.	2017			
Ms. Chanel Byrd	B.S.	2017			Brevard Eye Instit.
Samantha Estabrooks	B.S.	2017			
Ms. Shukun Yang	B.S.	2016	PhD in UIUC		Grad student
Carolina Nascimento	B.S.	2015		Temple U.	Medical Student
Flavia Zisi-Tegou	B.S.	2015		MS in Biomed.	
Mr. Dan Delellis	B.S.	2015			
Mr. Zhouxiang Chen	B.S.	2014	Ph.D.		
Ms. Brian Silver	B.S.	2014	Ph.D. Princeton in 2020	Max Planck, Ger	Caltech/Princeton
Ms. Norah Ashoura	B.S.	2014	Ph.D. (UT Austin)		Princeton REU
Mr. Adrian Blust	B.S.	2013			
Brandon Clutterham	B.S.	2013			
Mr. John Robertson	B.S.	2013	Ph.D. (Tulane U, LA)		
Ms. Yichao Yu	B.S.	2013	Ph.D.		
Ms. Nicole Clarke	B.S.	2013	Patent Agent	Arent Fox	Intern at Scripps, FL
Ms. Raquel Mensch	B.S.	2013	Medical School, Ireland		
Ms. Tammy Bilak Bron	B.S.	2012	M.S. (Nesnas)		
Ms. Ali Ronk	B.S.	2012	Pharmacy School	U. Minnesota	
Andrew Schmudlach	B.S.	2012	Ph.D. (Notre Dame, IN)		
Mr. Samuel Breit	B.S.	2012	M.S. (Xu, FIT)		
Ms. Stephanie Monaco	B.S.	2012	Pharmacy (U. Utah)	Onc. Pharmacist	Mass Gen. Hospital
Ms. Karissa Albin	B.S.	2012	Chemist	Lancaster labs	
Ms. Ziyuan Xia	B.S.	2012	Ph.D. UMass Amherst		
Mr. Kurt Pessa	B.S.	2010	Pharmacy intern	Walgreens	
Mr. Nicole Miller	B.S.	2009			
Mr. Mark Goldbach	B.S.	2008			
Mr. Antoine Zufferey	B.S.	2008	M.S. (Sohn)		
Mr. Peter J. Cohen	B.S.	2008	M.S., Ph.D. (Nesnas)		
Mr. Yannick Ouedraogo	B.S.	2007	M.S., Ph.D. (Nesnas)	Intel Corp.	
Ms. Nia Maruszak	B.S.	2007		Novartis	
Ms. Nicole Simpson	B.S.	2006		Director	L'Oreal USA
Ms. Melissa LeMay	B.S.	2007	M.S. (M. Sohn, FIT)	Environmental	
Mr. Steven Hitt	B.S.	2005			
Mr. Matthew Cargill	B.S.				
Mr. Jimbo Stokes	B.S.	2005			
Mr. Matthew Murtha	B.S.	2005	Ph.D. at Ohio State U.	Postdoc at NYU	Undergrad pub.

Mariana P. Torrente	B.S.	2005	Ph.D. at Princeton	Prof. Brooklyn C.	Postdoc at Penn
Ms. Cécile Morvan	B.S.	2004	Ph.D. Biopsychology		Boston College
Mr. Alvaro Mercado	B.S.	2004			

High School Students

Sumayya Mujeeb, Gillroy Benet, Denis Koksal-Rivet, Aamir Rashid,
Christina Darwish, Margarita Cruz-Sanchez, Nikita Davda, Alex Gabrielski, Zakaria Mujeeb, Zahra
Mujeeb.

Margarita Cruz-Sanchez received admission to 5/8 Ivy League Schools. Brown U. was her
selection with full scholarship support and guaranteed admission to Medical School

Denis Koksal-Rivet pursued his College degree at University of Oxford, United Kingdom

Aamir Rashid is in College at Stanford University

LANGUAGE SKILLS

Fluent in English, Arabic (multiple dialects), French, and basic reading and writing
in Hebrew and German

HOBBIES

Chess, Magic demos, Guitar, Piano, Drums, Soccer, Tennis, and Culinary Arts
Rated member of the US Chess Federation (**USCF**): #31020531