



Robert Craig

Bio

ACADEMIC APPOINTMENTS

- Basic Life Science Research Associate, Innovative Medicines Accelerator (IMA)

HONORS AND AWARDS

- NIH Ruth L. Kirschstein Postdoctoral Fellowship (F32), Stanford University (2015-2017)
- NIH Ruth L. Kirschstein Predoctoral Fellowship (F31), California Institute of Technology (2013-2015)
- Graduate Dean's Leadership Award, California Institute of Technology (2015)
- Phi Beta Kappa Honor Society, Davidson College (2010)
- ACS Undergraduate Award in Analytical Chemistry, Davidson College (2008)
- Chemistry Department Award for Organic Chemistry, Davidson College (2008)

PROFESSIONAL EDUCATION

- Postdoctoral Scholar, Stanford University (DuBois Lab) , Synthetic Organic Chemistry, Molecular Biology, and Electrophysiology (2017)
- Ph.D., California Institute of Technology (Stoltz Lab) , Synthetic Organic Chemistry (2015)
- B.S., Davidson College , Chemistry (Minor: Religion) (2010)

PATENTS

- STOLTZ Brian M., MARZIALE Alexander N., CRAIG Robert A., DUQUETTE Douglas, KIM Kelly E., LINIGER Marc, NUMAJIRI Yoshitaka. " Patent WO2016160579 ASYMMETRIC CATALYTIC DECARBOXYLATIVE ALKYL ALKYLATION USING LOW CATALYST CONCENTRATIONS AND A ROBUST PRECATALYST", California Institute of Technology
- CRAIG II Robert A., ESTRADA Anthony A., FENG Jianwen A., FOX Brian, HALE Christopher R. H., LEXA Katrina W., OSIPOV Maksim, REMARCHUK Travis, SWEENEY Zachary K., DE VICENTE FIDALGO Javier. " Patent WO2019032743 COMPOUNDS, COMPOSITIONS AND METHODS", Denali Therapeutics
- CRAIG II Robert A., ESTRADA Anthony A., FENG Jianwen A., LEXA Katrina W., OSIPOV Maksim, SWEENEY Zachary K., DE VICENTE FIDALGO Javier. " Patent WO2019046779 COMPOUNDS, COMPOSITIONS AND METHODS", Denali Therapeutics
- CRAIG II Robert A., DE VICENTE FIDALGO Javier, ESTRADA Anthony A., FENG Jianwen A., FOX Brian M., LEXA Katrina W., OSIPOV Maksim, SWEENEY Zachary K., THOTTUMKARA Arun. " Patent WO2019183589 MODULATORS OF EUKARYOTIC INITIATION FACTOR 2", Denali Therapeutics
- CRAIG II Robert A., DE VICENTE FIDALGO Javier, FENG Jianwen A., OSIPOV Maksim, THOTTUMKARA Arun. " Patent WO2020167994 COMPOUNDS, COMPOSITIONS AND METHODS", Denali Therapeutics
- CRAIG II Robert A., DE VICENTE FIDALGO Javier, ESTRADA Anthony A., FENG Jianwen A., FOX Brian M., OSIPOV Maksim, THOTTUMKARA Arun. " Patent WO2020168011 COMPOUNDS, COMPOSITIONS AND METHODS", Denali Therapeutics
- CRAIG II Robert A., DE VICENTE FIDALGO Javier, ESTRADA Anthony A., FENG Jianwen A., LEXA Katrina W., OSIPOV Maksim, SWEENEY Zachary K., THOTTUMKARA Arun. " Patent WO2020181247 COMPOUNDS, COMPOSITIONS AND METHODS", Denali Therapeutics
- CRAIG II Robert A., DE VICENTE FIDALGO Javier, ESTRADA Anthony A., FOX Brian M., HU Cheng, LEXA Katrina W., NILEWSKI Lizanne G., OSIPOV Maksim, THOTTUMKARA Arun. " Patent WO2022006433 COMPOUNDS, COMPOSITIONS AND METHODS", Denali Therapeutics

- CRAIG II Robert A., DE VICENTE FIDALGO Javier, ESTRADA Anthony A., FOX Brian M., HU Cheng, LEXA Katrina W., NILEWSKI Lizanne G., OSIPOV Maksim, THOTTUMKARA Arun, BAGDASARIAN Alex L., HUFFMAN Benjamin J.. " Patent WO2022036204 COMPOUNDS, COMPOSITIONS AND METHODS", Denali Therapeutics
- BAGDASARIAN Alex L., BUCHER Cyril, CRAIG II Robert A., DE VICENTE FIDALGO Javier, ESTRADA Anthony A., FOX Brian M., HU Cheng, HUFFMAN Benjamin J., LEXA Katrina W., NILEWSKI Lizanne G., OSIPOV Maksim, THOTTUMKARA Arun. " Patent WO2022109268 COMPOUNDS, COMPOSITIONS, AND METHODS", Denali Therapeutics

Publications

PUBLICATIONS

- **Discovery of Potent and Selective Dual Leucine Zipper Kinase/ Leucine Zipper-Bearing Kinase Inhibitors with Neuroprotective Properties in In Vitro and In Vivo Models of Amyotrophic Lateral Sclerosis** *JOURNAL OF MEDICINAL CHEMISTRY*
Craig II, R. A., Fox, B. M., Hu, C., Lexa, K. W., Osipov, M., Thottumkara, A. P., Larhammar, M., Miyamoto, T., Rana, A., Kane, L. A., Yulyaningsih, E., Solanoy, H., Nguyen, et al
2022
- **Evidence that toxin resistance in poison birds and frogs is not rooted in sodium channel mutations and may rely on "toxin sponge" proteins.** *The Journal of general physiology*
Abderemane-Ali, F., Rossen, N. D., Kobiela, M. E., Craig, R. A., Garrison, C. E., Chen, Z., Colleran, C. M., O'Connell, L. A., Du Bois, J., Dumbacher, J. P., Minor, D. L.
2021; 153 (9)
- **Veratridine: A Janus-Faced Modulator of Voltage-Gated Sodium Ion Channels.** *ACS chemical neuroscience*
Craig, R. A., Garrison, C. E., Nguyen, P. T., Yarov-Yarovoy, V., Du Bois, J.
2020
- **Enantioselective, Convergent Synthesis of the Ineleganolide Core by a Tandem Annulation Cascade.** *Chemical science*
Craig, R. A., Roizen, J. L., Smith, R. C., Jones, A. C., Virgil, S. C., Stoltz, B. M.
2017; 8 (1): 507-514
- **Evidence that toxin resistance in poison birds and frogs is not rooted in sodium channel mutations and may rely on "toxin sponge" proteins**
Abderemane-Ali, F., Rossen, N. D., Kobiela, M. E., Craig, R. Z., Garrison, C. E., Chen, Z., Colleran, C. M., O'Connell, L. A., Du Bois, J., Dumbacher, J. P., Minor, D. L.
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- **Unified Enantioselective, Convergent Synthetic Approach toward the Furanobutenolide-Derived Polycyclic Norcembranoid Diterpenes: Synthesis of a Series of Ineleganoloids by Oxidation-State Manipulation of the Carbocyclic Core.** *The Journal of organic chemistry*
Craig, R. A., Smith, R. C., Roizen, J. L., Jones, A. C., Virgil, S. C., Stoltz, B. M.
2019; 84 (12): 7722-7746
- **Correction: Enantioselective, convergent synthesis of the ineleganolide core by a tandem annulation cascade.** *Chemical science*
Craig, R. A., Roizen, J. L., Smith, R. C., Jones, A. C., Virgil, S. C., Stoltz, B. M.
2019; 10 (4): 1254-1255
- **Development of a Unified Enantioselective, Convergent Synthetic Approach Toward the Furanobutenolide-Derived Polycyclic Norcembranoid Diterpenes: Asymmetric Formation of the Polycyclic Norditerpenoid Carbocyclic Core by Tandem Annulation Cascade.** *The Journal of organic chemistry*
Craig, R. A., Smith, R. C., Roizen, J. L., Jones, A. C., Virgil, S. C., Stoltz, B. M.
2018; 83 (7): 3467-3485
- **Polycyclic Furanobutenolide-Derived Cembranoid and Norcembranoid Natural Products: Biosynthetic Connections and Synthetic Efforts.** *Chemical reviews*
Craig, R. A., Stoltz, B. M.
2017; 117 (12): 7878-7909
- **Catalytic enantioselective total synthesis of (+)-eucomic acid.** *Tetrahedron*
Estipona, B. I., Pritchett, B. P., Craig, R. A., Stoltz, B. M.
2016; 72 (26): 3707-3712
- **Preparation of 1,5-Dioxaspiro[5.5]undecan-3-one.** *Organic syntheses; an annual publication of satisfactory methods for the preparation of organic chemicals*
Craig, R. A., Smith, R. C., Pritchett, B. P., Estipona, B. I., Stoltz, B. M.

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- **Palladium-Catalyzed Enantioselective Decarboxylative Allylic Alkylation of Cyclopentanones.** *Organic letters*
Craig, R. A., Loskot, S. A., Mohr, J. T., Behenna, D. C., Harned, A. M., Stoltz, B. M.
2015; 17 (21): 5160-3
- **Synthesis and Exploration of Electronically Modified (R)-5,5-Dimethyl-(p-CF₃)₃-i-PrPHOX in Palladium-Catalyzed Enantio- and Diastereoselective Allylic Alkylation: A Practical Alternative to (R)-(p-CF₃)₃-t-BuPHOX.** *Tetrahedron letters*
Craig, R. A., Stoltz, B. M.
2015; 56 (32): 4670-4673
- **An Efficient Protocol for the Palladium-catalyzed Asymmetric Decarboxylative Allylic Alkylation Using Low Palladium Concentrations and a Palladium(II) Precatalyst.** *Advanced synthesis & catalysis*
Marziale, A. N., Duquette, D. C., Craig, R. A., Kim, K. E., Liniger, M., Numajiri, Y., Stoltz, B. M.
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- **Highly functionalized donor-acceptor cyclopropanes applied toward the synthesis of the Melodinus alkaloids.** *Tetrahedron letters*
Goldberg, A. F., Craig, R. A., O'Connor, N. R., Stoltz, B. M.
2015; 56 (23): 2983-2990
- **Palladium-catalyzed decarboxylative allylic alkylation of diastereomeric #-ketoesters.** *Tetrahedron*
Ma, S., Reeves, C. M., Craig, R. A., Stoltz, B. M.
2014; 70 (27-28): 4208-4212
- **Stereoselective Lewis acid mediated (3+2) cycloadditions of N-H- and N-sulfonylaziridines with heterocumulenes.** *Chemistry (Weinheim an der Bergstrasse, Germany)*
Craig, R. A., O'Connor, N. R., Goldberg, A. F., Stoltz, B. M.
2014; 20 (16): 4806-13
- **Enantioselective synthesis of a hydroxymethyl-cis-1,3-cyclopentenediol building block.** *Organic letters*
Craig, R. A., Roizen, J. L., Smith, R. C., Jones, A. C., Stoltz, B. M.
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- **Lewis acid mediated (3 + 2) cycloadditions of donor-acceptor cyclopropanes with heterocumulenes.** *Organic letters*
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