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Bioorganic and Medicinal Chemistry Letters	65	Katie Near
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Next Due Date: Thursday, June 15, 2017

Instructions for Authors (Volume 1)

Identify articles to abstract in the journals you have been assigned. Try to pick things that the group (or specific subgroups) would like to read or should be aware of. This does not need to be limited to chemistry! If you encounter interesting pieces of media elsewhere (The Economist being a recent example) don't hesitate to let the group know. If you are splitting a journal with another group member, talk with him/her to be sure you are not reviewing redundantly. If you are not able to cover your journal for some reason, get someone to cover it for you—as if it were your group job.

Create an Abstract

Abstract submissions are usually prepared using ChemDraw. The editors of the *Lit Review* strongly encourage the copying of graphical material from PDF files and wish to point out the following. Graphics stored in PDF files are typically of postscript or >300 dpi quality. When an image is copied into a ChemDraw document, a screen snapshot is taken, and the image is captured at the present screen resolution. If the PDF file is being viewed zoomed-in, this typically results in the transfer of a high quality image. If the PDF is being viewed zoomed-out, a low quality image typically results. Text can be copied from a PDF file and pasted as text using the text select or column select tool. Once pasted, this text behaves as if it were input from the keyboard.

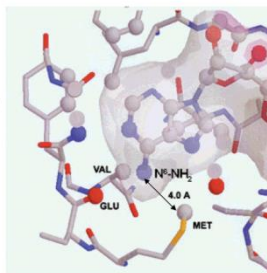
Include a brief textual summary of the article; an example of a completed abstract is shown below. The list of topics and subgroups on the right is useful to highlight which subgroups should pay attention to your abstract and roughly what kind of chemistry the article contains.

Please email the files to knear@stanford.edu. Late abstracts will be included in the Lit Review for the following month. **PCs please send .cdx and macs please send .pdf files.**

Citation: Abeyweera, T.P.; Rotenberg, S.A. *Biochemistry* 2007, 46, 2364-2370

Design and Characterization of a Traceable Protein Kinase C-alpha

Protein kinase CR (PKCR) is a critical component of pathways that govern cancer-related phenotypes such as invasion and proliferation. Proteins that serve as immediate substrates for PKCR offer potential targets for anticancer drug design. To identify specific substrates, a mutant of PKCR (M417A) was constructed at the ATP binding site such that it could bind a sterically large ATP analogue derivatized through the N6 amino group of adenosine (1- β - 32 P-N6-phenyl-ATP). Because this analogue could be utilized by the mutant kinase but not by wild-type PKCR (or presumably other protein kinase) to phosphorylate peptide or protein substrates, 32 P-labeled products were the direct result of the mutant PKCR.



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Citation: Dictionary.com (search term = "mook")

For those of you who always wanted to know what it meant....

mook **Pronunciation Key** (mk) *n. Slang*

An insignificant or contemptible person.

methods
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DON'T BE A MOOK!

Lit Review MOOKS include those who:

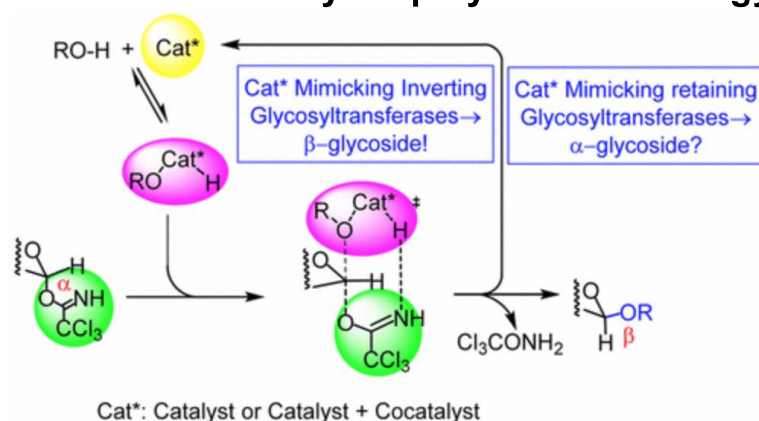
- fail to submit their abstracts in a timely fashion (or at all), or
- claim there was nothing to abstract in *JACS*, *JOC*, *Org. Lett.*, etc.

Penalties for being a Lit Review MOOK:

- You will get last choice when it's time to pick new journals.

Citation: Peng, P.; & Schmidt, R. *Acc. Chem. Res.* **2017**, ASAP

Acid–Base Catalysis in Glycosidations: A Nature Derived Alternative to the Generally Employed Methodology

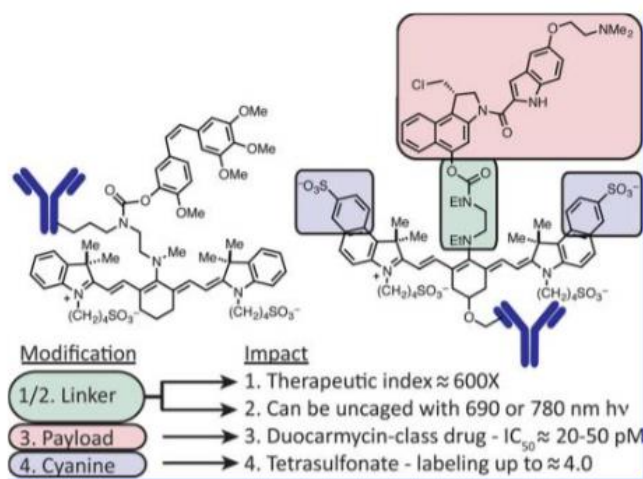


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Prostratin

Citation: ACS Cent. Sci. 2017, 3 (4), 266–268 DOI: 10.1021/acscentsci.7b00102.

(Near-Infra)
Red Means
STOP:
Shutting
Down Cancer
with NIR
Light.

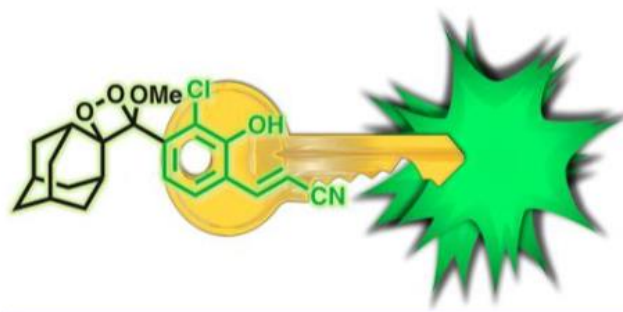


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Citation: ACS Cent. Sci. 2017, 3 (4), 269–271 DOI: 10.1021/acscentsci.7b00107.

Unlocking the Potential of Chemiluminescence Imaging.

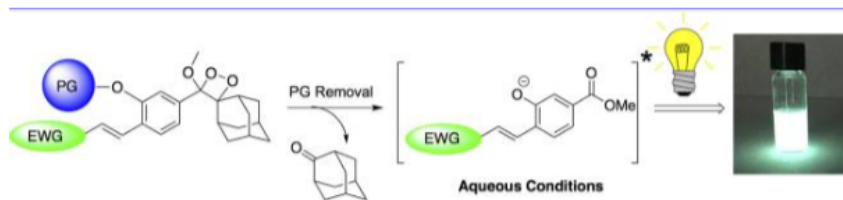


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Citation: ACS Cent. Sci. 2017, 3 (4), 349–358 DOI: 10.1021/acscentsci.7b00058.

Opening a Gateway for Chemiluminescence Cell Imaging: Distinctive Methodology for Design of Bright Chemiluminescent Dioxetane Probes.

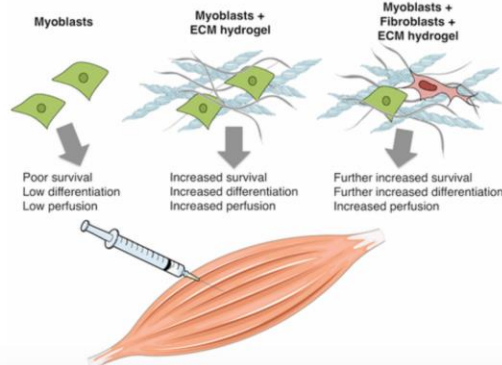


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Citation: Rao, N. et al. *ACS Nano*, 2017, 11 (4) 3851-3859

Engineering an Injectable Muscle-Specific Microenvironment for Improved Cell Delivery Using a Nanofibrous Extracellular Matrix Hydrogel

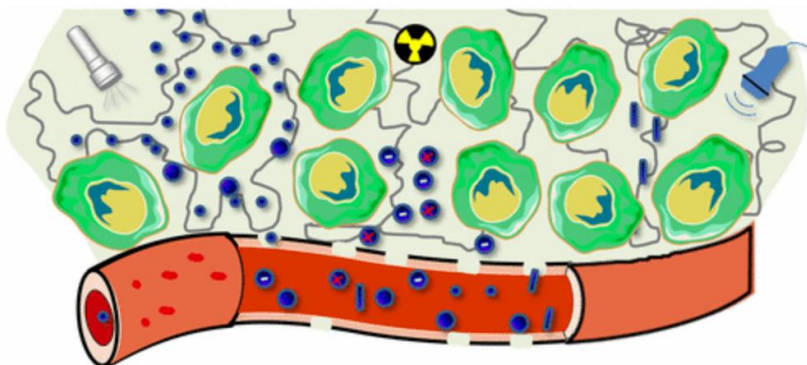


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Citation: Sun, Q. et al. *Biomacromolecules*, 2017, 18 (5) 1449-1459

Enhancing Tumor Penetration of Nanomedicines

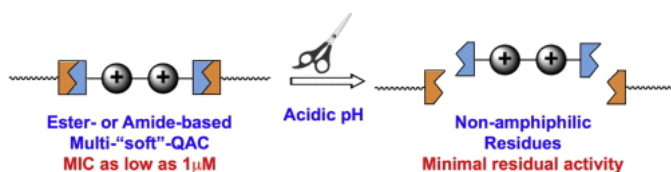


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Citation: Allen, R. A.; *et al. Bioorg. Med. Chem. Lett.* **2017**, *27*, 2107.

Ester- and amide-containing multiQACs: Exploring multicationic soft antimicrobial agents



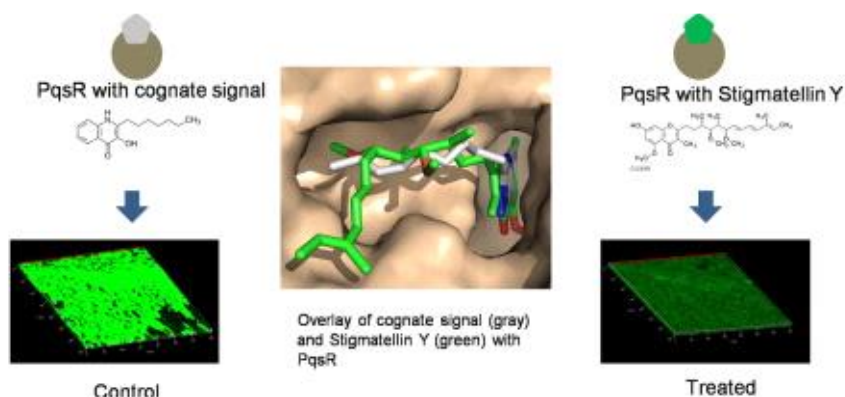
The authors designed and prepared 40 quaternary ammonium compounds (QACs) based on both ester and amide linkages, in a systematic study of mono-, bis-, and tris-cationic QAC species. Antimicrobial activity, red blood cell lysis, and chemical stability were assessed. Antiseptic activity was strong against a panel of six bacteria including two MRSA strains, with low micromolar activity seen in many compounds; amide analogs showed superior activity over ester analogs, with one bisQAC displaying average MIC activity of ~1 μM .

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Citation: Boopathi, S.; *et al. Bioorg. Med. Chem. Lett.* **2017**, *27*, 2113.

Stigmatellin Y – An anti-biofilm compound from *Bacillus subtilis* BR4 possibly interferes in PQS–PqsR mediated quorum sensing system in *Pseudomonas aeruginosa*

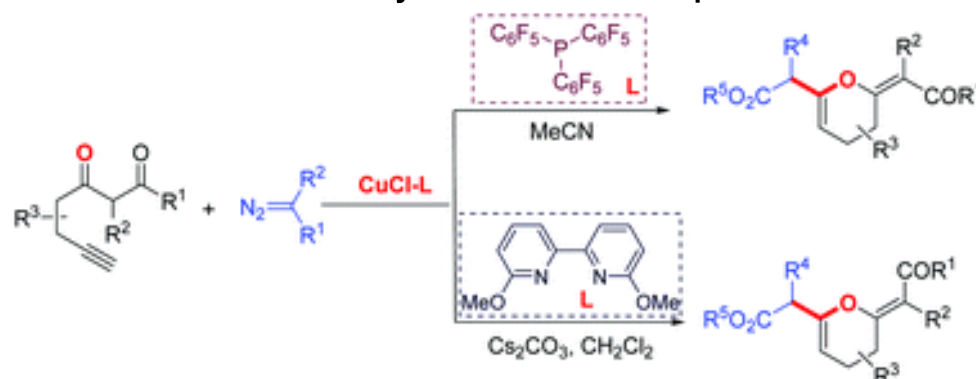


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Citation: Min, J.; Xu, G.; Sun, J. *Chem Commun.* **2017**, *53*, 4350.

A controlled selective synthesis of dihydropyrans through tandem reaction of alkynes with diazo compounds

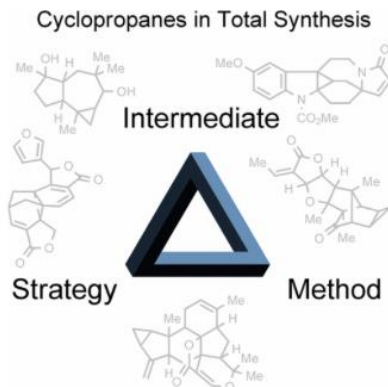


A controlled synthesis of dihydropyrans via sequential reaction of allenolate formation and intramolecular oxo-Michael addition has been achieved.

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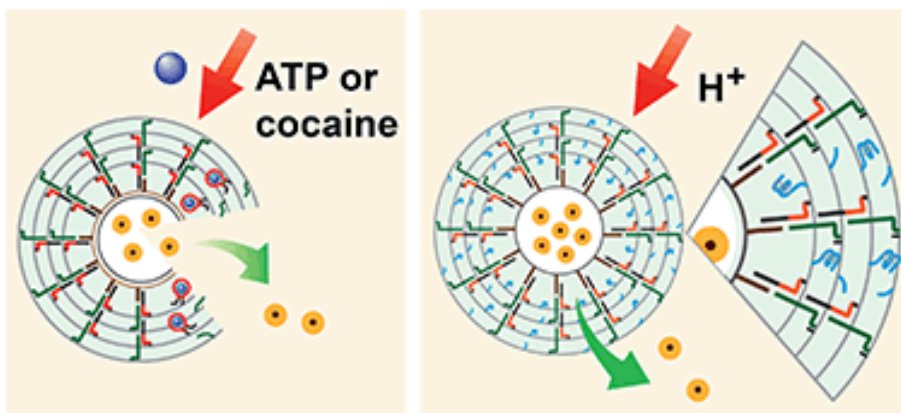
Cyclopropanation Strategies in Recent Total Syntheses



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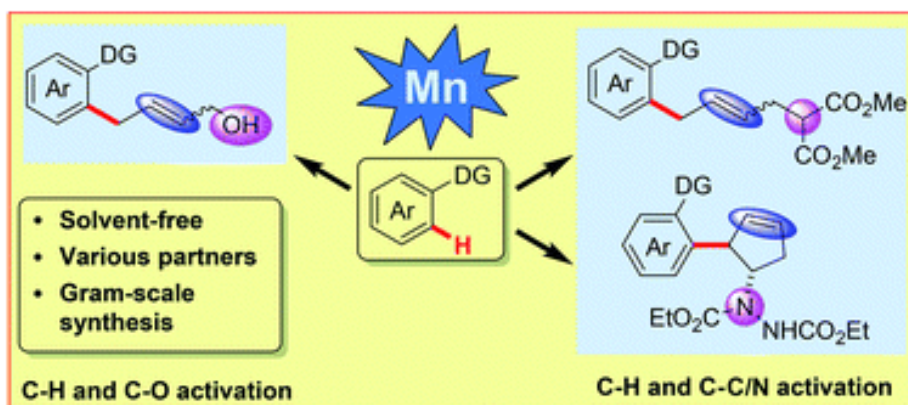
pH- and ligand-induced release of loads from DNA-acrylamide hydrogel microcapsules.



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Manganese-catalyzed allylation via sequential C-H and C-C/C-Het bond activation

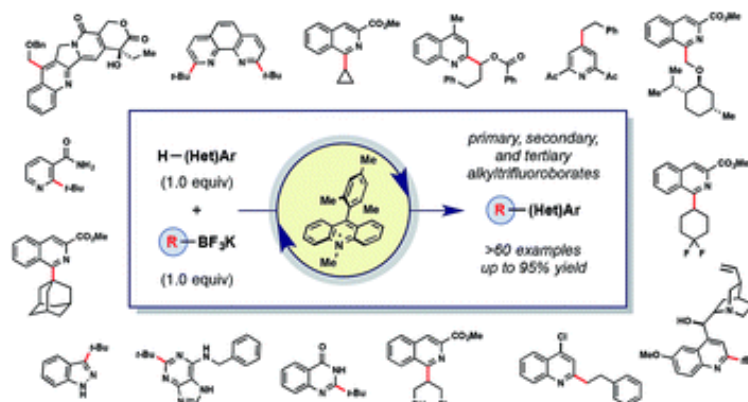


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Citation: Matsui, J. K.; et al. *Chem. Sci.* **2017**, 8, 3512

Metal-free C-H alkylation of heteroarenes with alkyltrifluoroborates: a general protocol for 1°, 2° and 3° alkylation

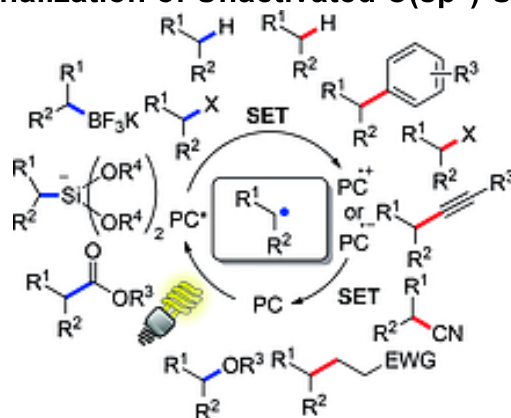


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Citation: Roslin, S. et al. *Eur. J. Org. Chem.* **2017**, 15, 1993

Visible-Light Photocatalysis as an Enabling Tool for the Functionalization of Unactivated C(sp³)-Substrates

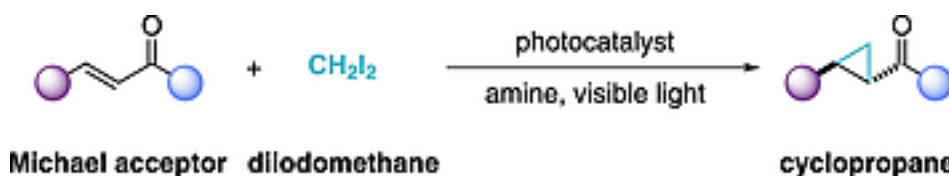


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Citation: del Hoyo, A. M. et al. *Eur. J. Org. Chem.* **2017**, 15, 2122

Photoredox-Catalyzed Cyclopropanation of Michael Acceptors

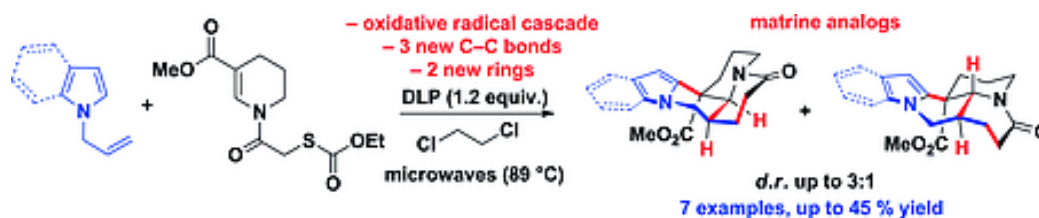


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Citation: Olguin-Urbe, S. et al. *Eur. J. Org. Chem.* **2017**, 17, 2481

Expedited Synthesis of Matrine Analogues through an Oxidative Cascade Addition/Double-Cyclization Radical Process

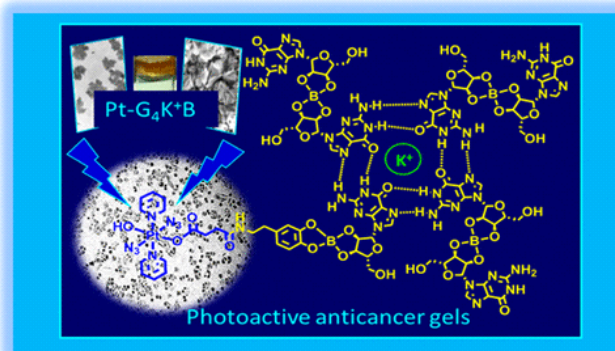


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Citation: V. Venkatesh, Narendra Kumar Mishra, and Peter J. Sadler, et al. *JACS* **2017** 139 (16), 5656-5659

Supramolecular Photoactivatable Anticancer Hydrogels

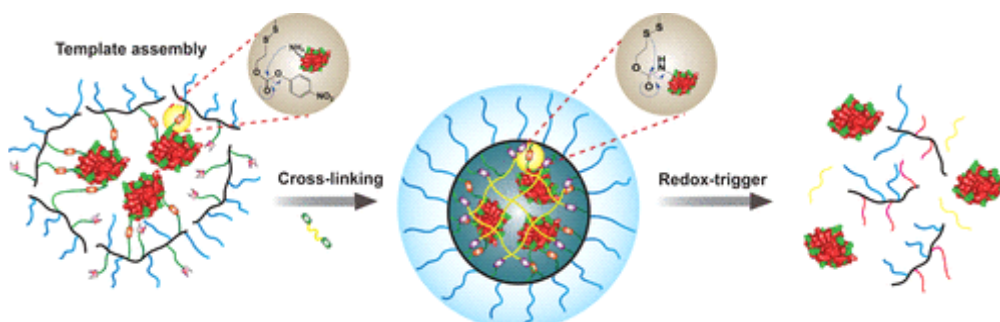


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Citation: Kingshuk Dutta, Ding Hu, Bo Zhao, Alexander E. Ribbe, Jiaming Zhuang, and S. Thayumanavan *Journal of the American Chemical Society* **2017** 139 (16), 5676-5679

Templated Self-Assembly of a Covalent Polymer Network for Intracellular Protein Delivery and Traceless Release

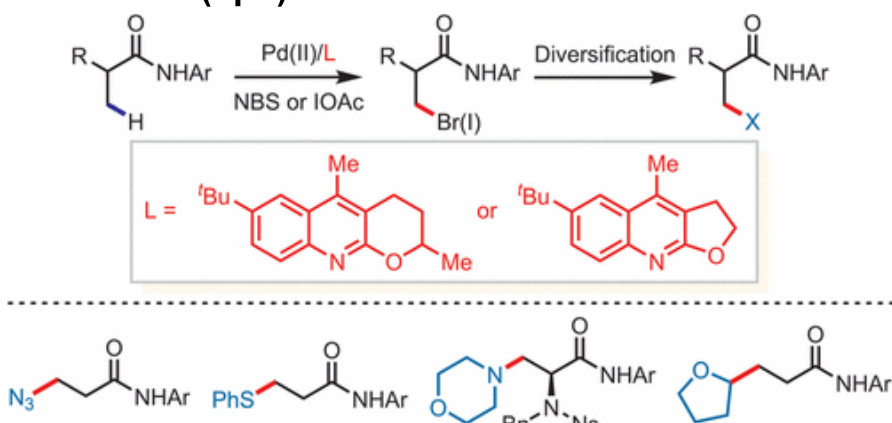


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Citation: Ru-Yi Zhu, Tyler G. Saint-Denis, Ying Shao, Jian He, Joshua D. Sieber, Chris H. Senanayake, and Jin-Quan Yu *JACS* **2017** 139 (16), 5724-5727

Ligand-Enabled Pd(II)-Catalyzed Bromination and Iodination of C(sp³)-H Bonds

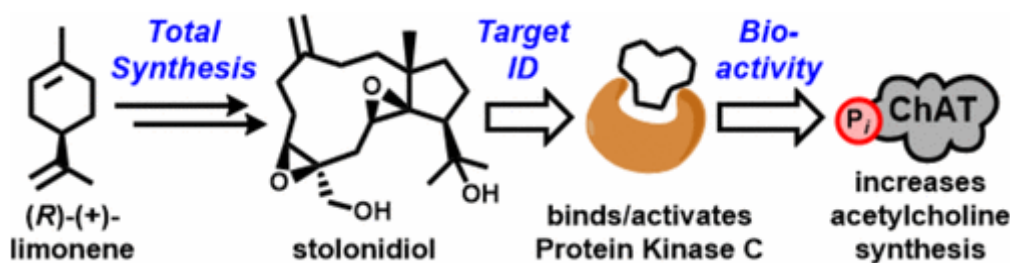


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C-H activation

Citation: Jeremy W. Mason, Cullen L. Schmid, Laura M. Bohn, and William R. Roush
Journal of the American Chemical Society **2017** 139 (16), 5865-5869

Stolonidiol: Synthesis, Target Identification, and Mechanism for Choline Acetyltransferase Activation

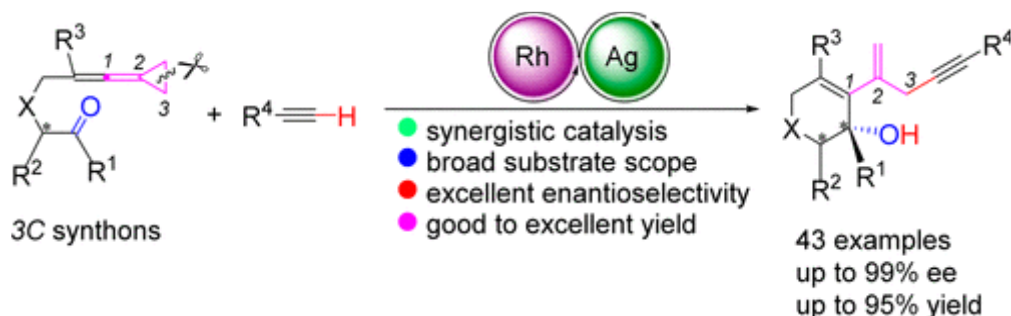


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Citation: Song Yang, Kang-Hua Rui, Xiang-Ying Tang, Qin Xu, and Min Shi
Journal of the American Chemical Society **2017** 139 (16), 5957-5964

Rhodium/Silver Synergistic Catalysis in Highly Enantioselective Cycloisomerization/Cross Coupling of Keto-Vinylidenecyclopropanes with Terminal Alkynes



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Citation: *JACS*, 2017, 139, 6046.

A Concise, Efficient and Scalable Total Synthesis of Thapsigargin and Nortrilobolide from (R)-(-)-Carvone



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Citation: *JACS*, 2017, 139, 6152.

Chemical Probes Unravel an Antimicrobial Defense Response Triggered by Binding of the Human Opioid Dynorphin to a Bacterial Sensor Kinase

Host–microbe communication via small molecule signals is important for both symbiotic and pathogenic relationships, but is often poorly understood at the molecular level. Under conditions of host stress, levels of the human opioid peptide dynorphin are elevated, triggering virulence in the opportunistic pathogenic bacterium *Pseudomonas aeruginosa* via an unknown pathway. Here we apply a multilayered chemical biology strategy to unravel the mode of action of this putative interkingdom signal.

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Citation: *JAMA*. 2017;317(18):1835-1837. doi:10.1001/jama.2017.3436

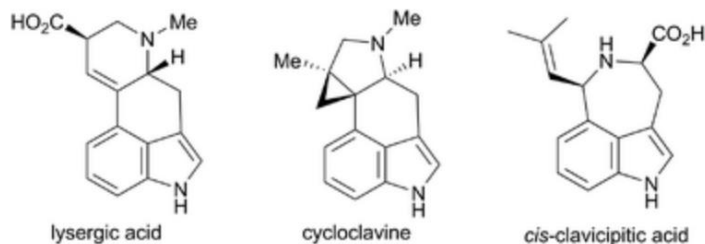
Treatment of KRAS-Mutant Non–Small Cell Lung Cancer

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Citation: Liu, H. et al. *Nat. Prod. Rep.*, **2017**, 34, 411-432

Ergot alkaloids: synthetic approaches to lysergic acid and clavine alkaloids

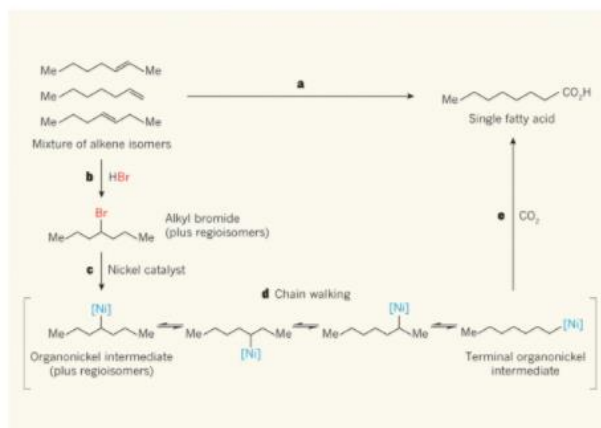


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Citation: *Nature* **543**, 637–646 (30 March 2017) doi:10.1038/nature21701

Remote carboxylation of halogenated aliphatic hydrocarbons with carbon dioxide



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Citation: *Nature* **545**, 17 (04 May 2017) doi:10.1038/545017a

Party drug's power to fight depression puzzles scientists

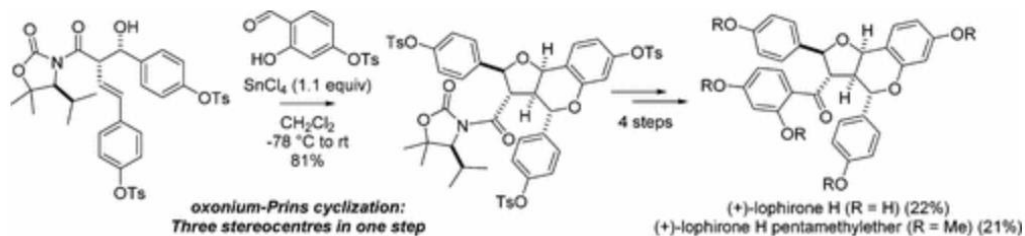


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Citation: Abas *et al. Org. Lett.* **2017**, ASAP

Total Synthesis of (+)-Lophirone H and Its Pentamethyl Ether Utilizing an Oxonium-Prins Cyclization



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Citation: PNAS 2017, 114 (15), 3798–3800 DOI: 10.1073/pnas.1703236114.

Preventing Acquisition of HIV Is the Only Path to an AIDS-Free Generation.

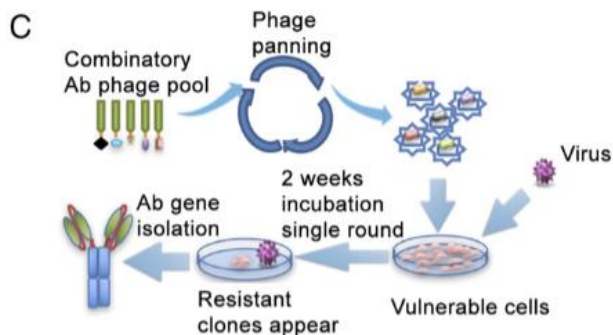
*** Good references for Bryo intro slides!!

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Citation: PNAS 2017, 114 (18), 4655–4660 DOI: 10.1073/pnas.1702764114.

Immunochemical Engineering of Cell Surfaces to Generate Virus Resistance.



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