



## DAVID N. PRIMER

Eli Lilly and Co.  
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### EDUCATION:

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#### University of Pennsylvania, Graduate School of Arts and Sciences

2012-2017

Doctor of Philosophy, Organic Chemistry, GPA: 3.97/4.00

#### Emory University, College of Arts and Sciences

2008-2012

Bachelor of Science, Chemistry, GPA: 3.37/4.00

### INDUSTRY EXPERIENCE:

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#### Eli Lilly, Chemistry, Manufacturing, and Controls, *Director:*

2022-

- Supervised, coordinated project assignment, and completed process chemistry training for 5 direct reports in our CMC process chemistry group.
- Served as CMC project lead for LSN4170130, coordinating between 3 vendors, our external discovery partners, and the rest of the CMC development team.
- Served as CMC chemistry lead for multiple projects:
  - ❑ Developed the 4-step GMP route for lead LY4050784 – internally delivering 500 g of material to support GLP tox on a tight timeline. The process has now been scaled to >100 kg at multiple GMP vendors.
  - ❑ Developed the 5-step GMP route for lead LY3866288 synthesis and implemented tech transfer activities to cut timelines by 70% and costs by 50% - allowing our Ph1 clinical plans to remain on pace for accelerated approval. This process has been scaled to >400 kg externally.

#### Bristol Myers Squibb, Chemical Process Development, *Principal Scientist:*

2020-2022

- Optimized the final three steps in the synthesis of CC-94676 (BMS-986365) – delivering >12 kg of PhI material as a racemic mixture and as the two single diastereomers compounds.
- Managed and trained two scientists on process development and route scouting towards a key intermediate in our bifunctional degrader portfolio.
- Identified several crystalline forms of a greasy, high molecular weight API (>900 MW), allowing the group to transition from an amorphous precipitation to a controlled crystallization.
- Provided technical management and know-how to ensure smooth technology transfer to our partner vendors in Colorado, Wisconsin, India, and China.
- Collaborated with ACD Labs, internal IT, and several BMS process groups to design web browser based high throughput experimentation software that improves data capture and data analysis for our solubility, catalysis, and class variable screening groups.

#### Celgene Corporation, Drug Substance Development, *Scientist*

2017-2020

- Developed a crystallization induced resolution of a racemic amine to access a single enantiomer of a glutarimide-containing drug scaffold – affording access to a highly enantioenriched intermediate for the first time in commercial quantities.
- Traveled to support ongoing development work at various global manufacturing sites.
- Completed a patent application and publication for novel processes developed for CC-90010.
- Scaled three processes from 500 g to over 20 kg for Iberdomide® – including traveling to support manufacturing sites in Switzerland, the United Kingdom, and the United States.

## RESEARCH EXPERIENCE:

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**University of Pennsylvania, Department of Chemistry, Graduate Research Assistant:** 2013-2017

Advisor: Prof. Dr. Gary A. Molander

- Thesis Title: *Single-Electron Transmetalation: Radical-Mediated Alkyl Transfer in Cross-Coupling*
- Led development of photoredox cross-coupling methods – an unknown, unprecedented strategy for forging C<sub>sp2</sub>-C<sub>sp3</sub> bonds that are important disconnections in pharmaceutical drug discovery.
- Co-wrote a successful NIH grant (GM-113878), providing lab funding for four years
- Served as liaison to the Merck Center for High-Throughput Experimentation, training over five lab members in high-throughput experimentation techniques which led to greater overall lab efficiency.

**Emory University, Department of Chemistry, Undergraduate Researcher:** 2011-2012

Advisor: Prof. Dr. Huw M. L. Davies

- Explored the increased reactivity of chiral silver and gold carbenoid species.

## PRESENTATIONS / AWARDS:

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**Early Career Investigator Award** – 45-min talk on process development career accomplishments **Aug. 2026**  
**Heterocycles Gordon Conference – Invited Speaker** – 45-min talk on CC-90010 synthesis and scaleup **Jun. 2022**  
**UPenn Dissertation Completion Fellowship:** 9-month funding for outstanding academic research and plan **2016-2017**  
**IPMI Sabin Metal Corp. Student Award:** \$5,000 award for outstanding precious metals research **Jun. 2016**  
**Genentech Graduate Student Symposium:** \$1,000 honorarium for oral presentation on graduate research **May 2016**  
**Philadelphia ACS National Meeting:** Oral presentation on photoredox cross-coupling methodologies **Aug. 2016**

## SELECTED PUBLICATIONS (15 total; 3 patent):

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- 1.) Wang, J.Y.; Stevens, J.M.; Kariofillis, S.K.; Tom, M.; Golden, D.L.; Li, J.; Tabora, J.E.; Parasram, M.; Shields, B.J.; **Primer, D.N.**; Hao, B.; Del Valle, D.; DiSomma, S.; Furman, A.; Zipp, G.G.; Melnikov, S.; Paulson, J.; Doyle, A.G. Identifying General Reaction Conditions by Bandit Optimization. *Nature*, **2024**, 626, 1025-1033
- 2.) Zacuto, M.J.; Traverse, J.F.; Bostwick, K.F.; Geherty, M.E.; **Primer, D.N.**; Zhang, W.; Zhang, C.; Janes, R.D.; Marton, C. Process Development and Kilogram-Scale Manufacture of Key Intermediates toward Single-Enantiomer CELMoDs: Synthesis of Iberdomide· BSA, Part 1. *Organic Process Research & Development*, **2024**, 28, 46-56
- 3.) **Primer, D.N.**; Yong, K.; Ramirez, A.; Kreilein, M.; Ferretti, A.C.; Ruda, A.M.; Fleary-Roberts, N.; Moseley, J.D.; Forsyth, S.M.; Evans, G.R.; Traverse, J.F. Development of a Process to a 4-Arylated 2-Methylisoquinolin-1(2H)-one for the Treatment of Solid Tumors: Lessons in Ortho-Bromination, Selective Solubility, Pd Deactivation, and Form Control. *Organic Process Research & Development*, **2022**, 26, 1458-1469
- 4.) **Primer, D.N.**; Molander, G.A. Enabling the Cross-Coupling of Tertiary Organoboron Nucleophiles through Radical-Mediated Alkyl Transfer. *J. Am. Chem. Soc.*, **2017**, 139, 9847-50.
- 5.) Tellis, J.C.\*; **Primer, D.N.\***; Molander, G.A. Single-Electron Transmetalation in Organoboron Cross-Coupling by Photoredox/Nickel Dual Catalysis. *Science*, **2014**, 345, 433-36.

## REFERENCES:

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