Transitioning from Academia to Industry

Drs. Craig Gorin, Samuel Levi and Alessia Amodio

28 May 2020

Dr. Craig Gorin

Associate Research Scientist at Dow

My Background

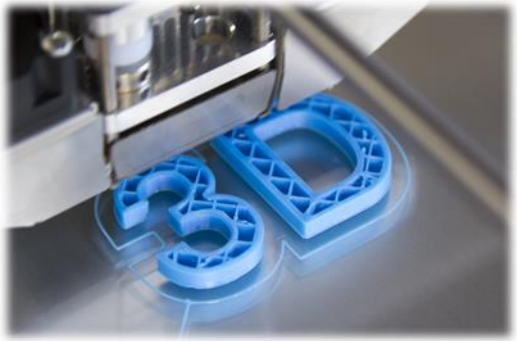
Education

A.B. Chemistry, Harvard University (2009)

Ph.D. Chemistry, Stanford University (2014)

Career

Dow - R&D Rotational Assignments Program (2014-2016)
Dow - Formulation, Automation, Materials Science Core R&D (Current)



Materials development in diverse, exciting applications

Differences between Industrial and Academic R&D

Day-to-Day Activities

New Skills For Success

One perspective from R&D at a large, materials company

How is an Industrial Researcher's Work Different?

Safety Culture

Team-based Projects

Business Mindset

New Skills for Success

Project Management

- Team Leadership
- Effective Communication
- Stakeholder Management

Networking/Mentorship

- Find Complementary Collaborators
- Leverage Past Learnings & Efforts
- Build Reputation

Basic Business Acumen

- Learn the Language
- Understand Your Company

One Last Favorite Difference

X

IMAGIN3D™ printing technology by DOW

Work-life Balance

Dr. Sam Levi

Senior Scientist at Merck & Co.

My Background

Education

B.A./M.S. from University of Pennsylvania (2010-2014)

Ph.D. from Harvard University (2014-2018)

Career

Merck & Co. Senior Scientist (2019-present)

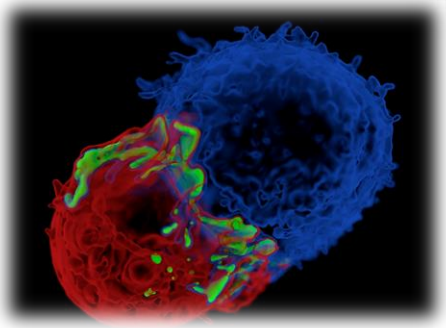
- Discovery chemistry in Immuno-oncology

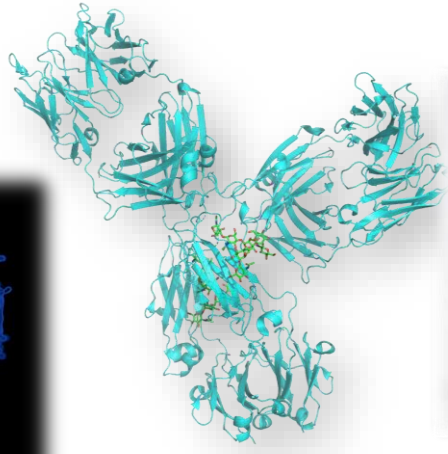
Awards

Reaxys PhD Prize Finalist 2019

Why I Chose “Pharma”

- Renaissance in Pharma R&D (2014-present)
  - The rise of immuno-oncology and drugging the “undruggable”





- Immunotherapy and checkpoint blockade (PD-1, PD-L1, CTLA-4)

- Molecular glues, bifunctional molecules, and the rebirth of chemical biology

Scapin G *et al*. *Nat. Struct. Mol. Biol.* **2015**, *22*, *953-958*.

Why I Chose “Pharma”

Emphasis on innovative and enabling science

Biocatalytic Asymmetric Synthesis of Chiral Amines from Ketones Applied to Sitagliptin Manufacture

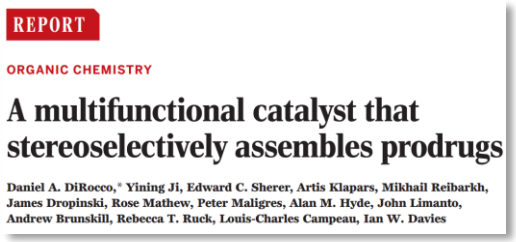
Christopher K. Savile,[1]* Jacob M. Janey,[2]* Emily C. Mundorff,[1] Jeffrey C. Moore,[2] Sarena Tam,[1] William R. Jarvis,[1] Jeffrey C. Colbeck,[1] Anke Krebber,[1] Fred J. Fleitz,[2] Jos Brands,[2] Paul N. Devine,[2] Gjalt W. Huisman,[1] Gregory J. Hughes[2]

RESEARCH ARTICLE

CANCER BIOMARKERS

Pan-tumor genomic biomarkers for PD-1 checkpoint blockade–based immunotherapy

Razvan Cristescu[1]*, Robin Mogg[1]†, Mark Ayers[1], Andrew Albright[1], Erin Murphy[1], Jennifer Yearley[1], Xinwei Sher[1], Xiao Qiao Liu[1], Hongchao Lu[1], Michael Nebozhyn[1], Chunsheng Zhang[1], Jared K. Lunceford[1], Andrew Joe[1], Jonathan Cheng[1], Andrea L. Webber[1], Tanguy Y. Seiwert[4], Andrey Loboda[1], Da

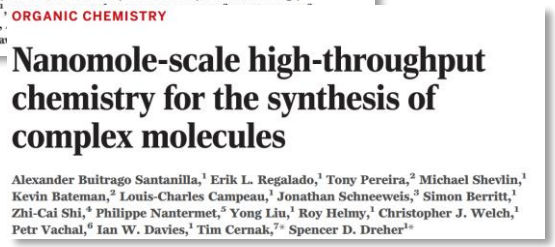


REPORT

ORGANIC CHEMISTRY

A multifunctional catalyst that stereoselectively assembles prodrugs

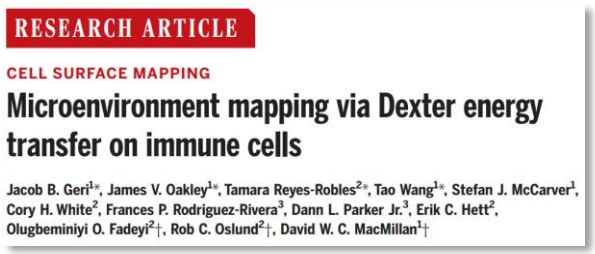
Daniel A. DiRocco,* Yining Ji, Edward C. Sherer, Artis Klapars, Mikhail Reibarkh, James Dropinski, Rose Mathew, Peter Maligres, Alan M. Hyde, John Limanto, Andrew Brunskill, Rebecca T. Ruck, Louis-Charles Campeau, Ian W. Davies



ORGANIC CHEMISTRY

Nanomole-scale high-throughput chemistry for the synthesis of complex molecules

Alexander Buitrago Santanilla,[1] Erik L. Regalado,[1] Tony Pereira,[2] Michael Shevlin,[1] Kevin Bateman,[2] Louis-Charles Campeau,[1] Jonathan Schneeweis,[3] Simon Berritt,[1] Zhi-Cai Shi,[4] Philippe Nantermet,[5] Yong Liu,[1] Roy Helmy,[1] Christopher J. Welch,[1] Petr Vachal,[6] Ian W. Davies,[1] Tim Cernak,[7]* Spencer D. Dreher[1]*



RESEARCH ARTICLE

CELL SURFACE MAPPING

Microenvironment mapping via Dexter energy transfer on immune cells

Jacob B. Geri[1]*, James V. Oakley[1]*, Tamara Reyes-Robles[2]*, Tao Wang[1]*, Stefan J. McCarver[1], Cory H. White[2], Frances P. Rodriguez-Rivera[3], Dann L. Parker Jr.[3], Erik C. Hett[2], Olugbeminiyi O. Fadeyi[2]†, Rob C. Oslund[2]†, David W. C. MacMillan[1]†

BIOCATALYSIS

Design of an in vitro biocatalytic cascade for the manufacture of islatravir

Mark A. Huffman[1]*, Anna Fryszkowska[1]*, Oscar Alvizo[2], Margie Borra-Garske[2], Kevin R. Campos[1], Keith A. Canada[1], Paul N. Devine[1], Da Duan[2], Jacob H. Forstater[1], Shane T. Grosser[1], Holst M. Halsey[1], Gregory J. Hughes[1], Junyong Jo[1], Leo A. Joyce[1]†, Joshua N. Kolev[1], Jack Liang[2], Kevin M. Maloney[1], Benjamin F. Mann[1], Nicholas M. Marshall[1]‡, Mark McLaughlin[1], Jeffrey C. Moore[1], Grant S. Murphy[1], Christopher C. Nawrat[1], Jovana Nazor[2], Scott Novick[2], Niki R. Patel[1], Agustina Rodriguez-Granillo[3]§, Sandra A. Robaire[1], Edward C. Sherer[3], Matthew D. Truppo[1]¶, Aaron M. Whittaker[1], Deeptak Verma[3], Li Xiao[3], Yingju Xu[1], Hao Yang[1]

Differences in Industry…

and What I Miss from Academia

- Broad interests, expertise
- Scientific and personal development
- Emphasis on impact

- “Proof-of-concept” problem solving
- Total intellectual freedom
- Seemingly limitless time to explore

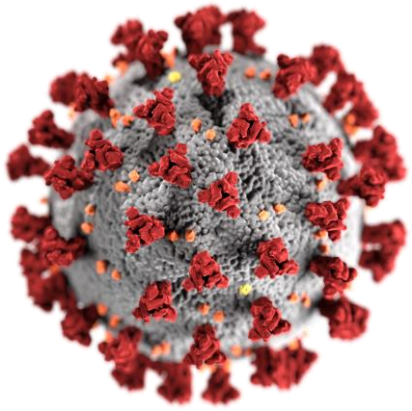
"A Typical Day"

- First thing: Reading!
  - Staying up do date

- Lab
  - To outsource or not?

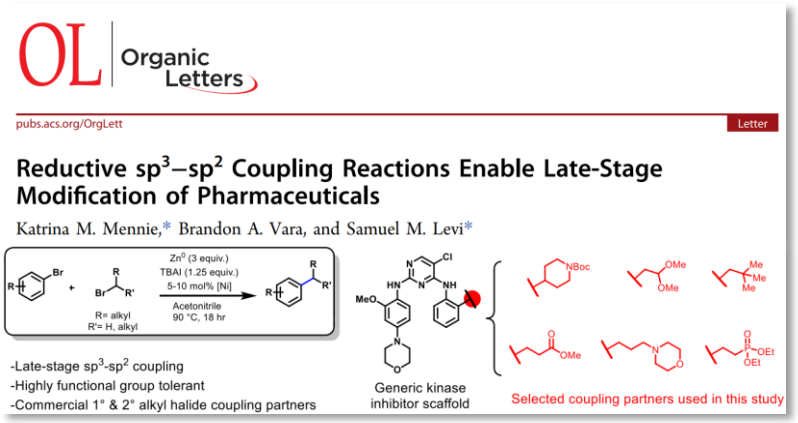
- Meetings
  - Key data overview
  - Building collaborations

- **COVID-19**
  - **Work from home**
  - **Hiring**



Developing Towards What You Enjoy

- No longer “academia” vs. “industry”
  - Industrial post docs
  - Internships, co-ops
  - Joint PhDs
  - Collaborative projects



- Independent research
  - Mentorship opportunities
  - Exposure
- Love of learning

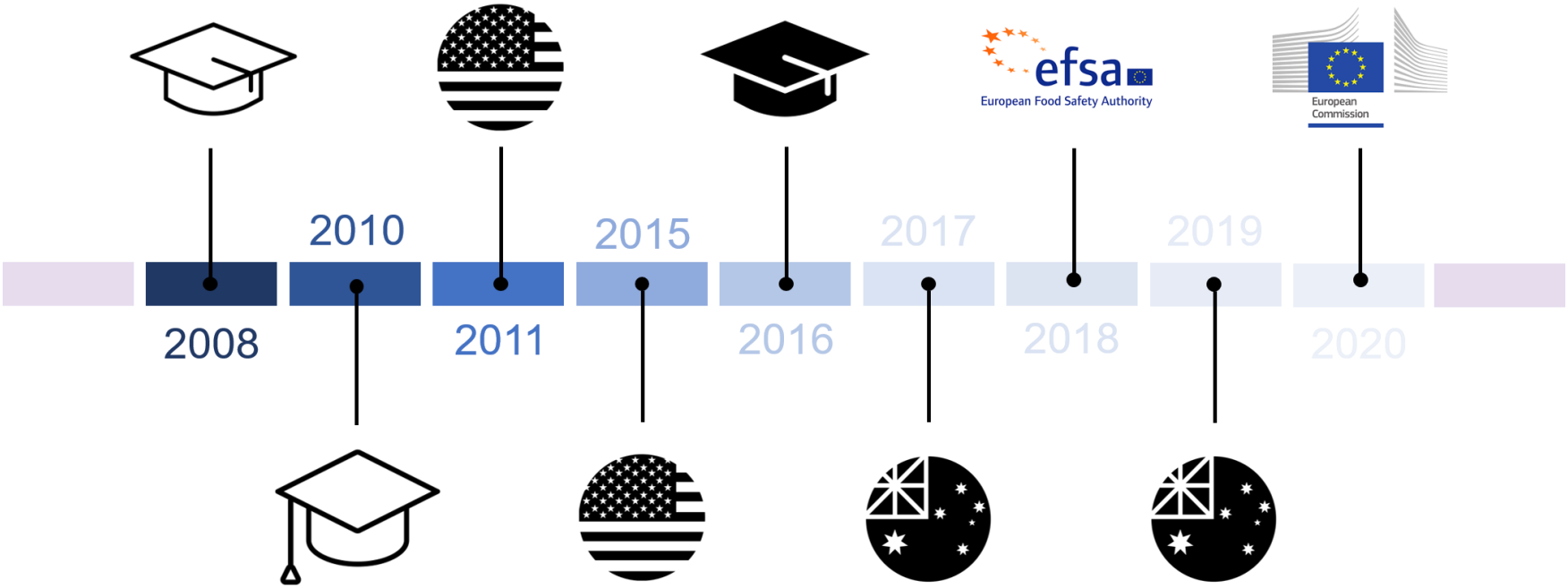
- Networking
  - Conferences, symposia, meetups, etc.

Dr. Alessia Amodio

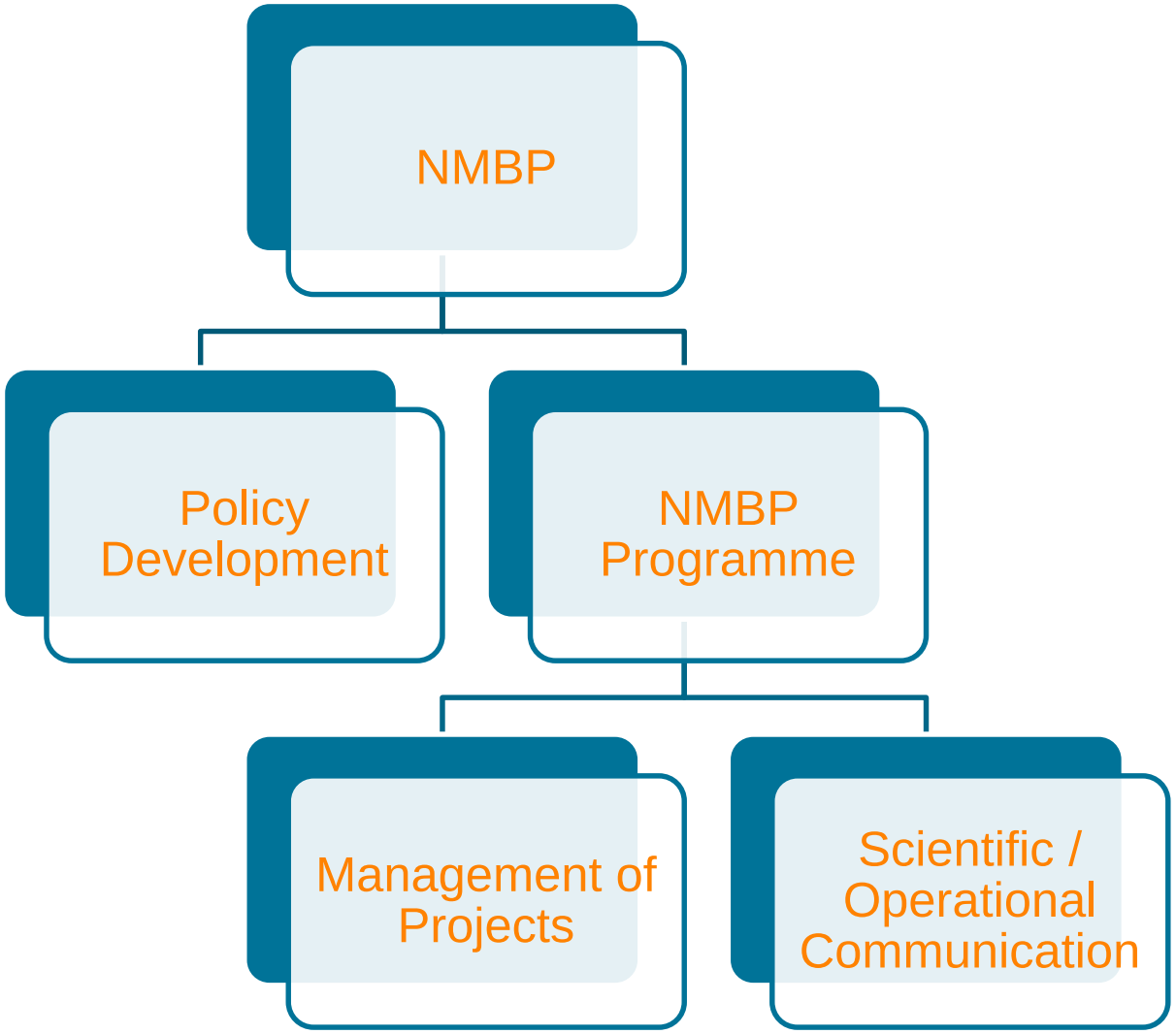
Policy and Project Officer at
European Commission, DG RTD

ELSEVIER

My Background

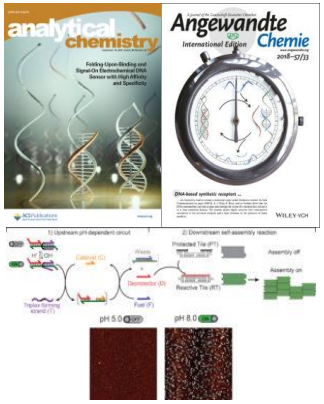


My current role – Policy Officer



Make your CV outstanding

Experience abroad



Track record

Internship / Traineeship

Prize / Award

Fellowship / Grant

The value of a traineeship

Selection process
- Highly competitive
- Low success rate

Application
- Form ≠ Academic CV
- Soft skills

Interview
- Who are you?
- What they do?

On-the-job experience

Professional network


nature

CAREER FEATURE · 07 NOVEMBER 2018

Why a European agency post can be an excellent destination for researchers

Competitive agency positions offer balanced and rewarding science careers.

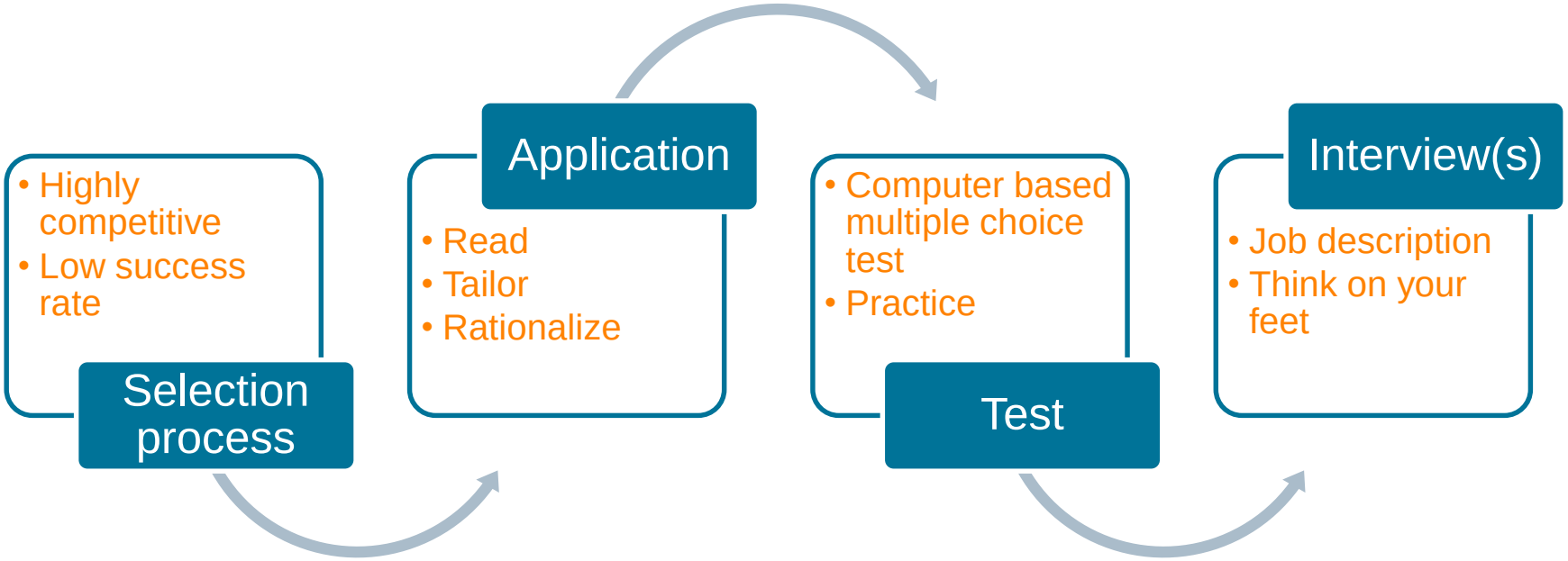
A traineeship at an EU agency raises young scientists' employability, Hugas adds. Chemist Alessia Amodio, now an EFSA trainee, wanted something new after two years of postdoctoral research in nanotechnology at the University of Tor Vegata in Rome and the University of Melbourne in Australia. She enjoys the variety of tasks in regulatory-driven science, but hasn't yet decided whether she prefers 'desk' science over bench research. She hopes that her experience in both worlds will open doors to whatever career path she might choose.

"I've been through many challenges and I've learned many new things," she says. "I'm not scared at all about what might come next."

Learning and training

Boost human capital

Job position - Recruitment process



Why make the transition?

Thank you.

Ask your questions on:

Researcher Academy Mendeley Group

Follow us on Twitter: @ResearcherAcad