



2016 Annual BRET Career Symposium

# Research and Development Careers in Industry

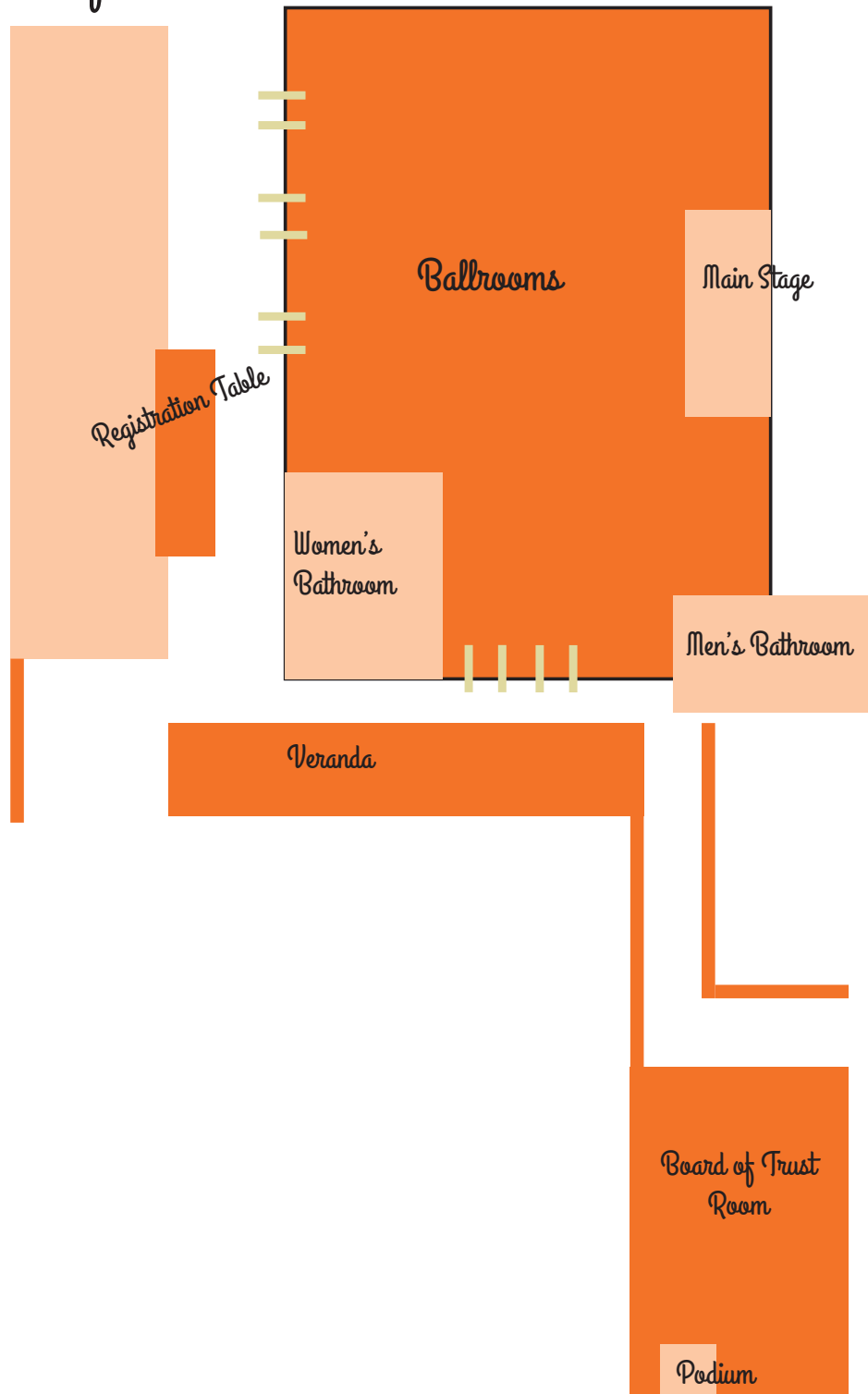
Thursday, June 2, 2016

Sponsored by  
BRET Office of Career Development

Vanderbilt Medical Alumni Association

and  
Training Grants in Biomedical Sciences

# Welcome to the Student Life Center!



*If you have any questions about the schedule throughout the morning, please return to the registration table outside SLC Ballrooms.*

*You may also text logistics questions to 615-804-4740.*

The BRET Office of Career Development, in partnership with the Vanderbilt Medical Alumni Association and training grants in the biomedical sciences, welcomes you to the 2016 BRET Annual Career Symposium:

## Research and Development Careers in Industry

If you enjoyed this event and want to help plan the 2017 Career Symposium or be on advisory boards and planning committees for future events, please email [kate.stuart@vanderbilt.edu](mailto:kate.stuart@vanderbilt.edu).

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### SPONSORED BY

**THE OFFICE OF BIOMEDICAL RESEARCH EDUCATION AND TRAINING**

**VANDERBILT MEDICAL ALUMNI ASSOCIATION**

**TRAINING GRANTS IN THE BIOMEDICAL SCIENCES**

Biochemical and Chemical Training for Cancer Research  
Cellular, Biochemical and Molecular Sciences Training Program  
Clinical and Translational Research Training Program in Pulmonary Medicine  
Immunobiology of Blood and Vascular Systems  
Integrated Biological Systems Training in Oncology  
Microenvironmental Influences in Cancer  
Molecular Biophysics Training Grant at Vanderbilt  
Postdoctoral Program in Functional Neurogenomics  
Surgical Oncology Training Grant  
Training in Fundamental Neuroscience  
Training in Pharmacological Sciences  
Training Program in Developmental Biology  
Vanderbilt Biomedical Informatics Training Program  
Vanderbilt Diabetes Research and Training Center

*Many thanks to the 2016 Career Symposium Planning Committee who gave their time and energy to the preparation of the symposium!*

Ms. Ramya Chandrasekaran, PhD Candidate, Vanderbilt University  
Mr. Jordan Feigerle, PhD Candidate, Vanderbilt University  
Dr. Benjamin A. Gilston, Postdoctoral Researcher, Vanderbilt University  
Mrs. Amanda Meyer, PhD Candidate, Vanderbilt University  
Mr. Sanjay Mishra, MS, PhD Candidate, Vanderbilt University  
Dr. Suneethi Sivakumaran, Postdoctoral Fellow, Vanderbilt University  
Dr. Keenan Taylor, Postdoctoral Fellow, Vanderbilt University  
Dr. Jan Varadarajan, Postdoctoral Fellow, Vanderbilt University

## REGISTRATION

8:30-9:00am

*If you have any questions throughout the day, please text 615-804-4740  
or visit the registration table.*

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9:00-9:10am

### WELCOME

*Ballrooms*

Kathy Gould, PhD

*Associate Dean for Biomedical Sciences  
Vanderbilt University School of Medicine*

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9:10-10:00am

### KEYNOTE ADDRESS

*Ballrooms*

Dave Jensen

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10:05-11:05am

### PANEL 1

*Ballrooms*

JT Brogan, PhD

Dan Hutcheson, PhD

Fatima Jones, PhD

Laurie VanderVeen, PhD

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11:05-11:15am

### STRETCH BREAK

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11:15-12:10pm

### PANEL 2

*Ballrooms*

Raul Camacho, PhD

Emily Rubinson, PhD

Steven Sanders, PhD

**AGENDA**  
*at a Glance*

12:15-12:30pm  
**LUNCH PICKUP**

*Instructions will be given for lunch pick-up.*

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12:30-1:15pm  
**LUNCH SESSION**

*Ballrooms*  
**TRAINING OPPORTUNITIES IN INDUSTRY  
WITH DALE EDGAR, PHD**

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**CONCURRENT SESSIONS**

1:30-2:15pm  
SESSION 1

**GROUP A**

*Board of Trust Room*  
**INDUSTRY JOB SEARCH TIPS  
WITH DAVE JENSEN**

**GROUP B**

*Ballrooms*  
**NETWORKING HUDDLES  
WITH SPEAKERS AND  
LOCAL COMPANIES**

2:30-3:15pm  
SESSION 2

**GROUP A**

*Ballrooms*  
**NETWORKING HUDDLES  
WITH SPEAKERS AND  
LOCAL COMPANIES**

**GROUP B**

*Board of Trust Room*  
**INDUSTRY JOB SEARCH TIPS  
WITH DAVE JENSEN**

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3:25-4:10pm  
**CLOSING SESSION**

*Ballrooms*  
David Tellers, PhD

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4:15-5:15pm  
**NETWORKING RECEPTION**

*Ballroom and Veranda*

**AGENDA**  
*at a Glance*

The BRET Office of Career Development provides professional and career development opportunities for graduate students and postdocs in the Vanderbilt University School of Medicine. Check out highlights below. Find out more at :

[HTTPS://MEDSCHOOL.VANDERBILT.EDU/CAREER-DEVELOPMENT/](https://medschool.vanderbilt.edu/career-development/)



The ASPIRE Program provides opportunities for career exploration (modules, intensives, and videos) and additional experiences (externships, internships) to prepare trainees to transition efficiently to research and research-related careers in both academic and nonacademic venues.

PhD Career Connections is a monthly seminar series about career options for PhD Scientists. Offered from September-May, the series invites speakers from a diverse range of exciting scientific careers to share insights from their professional experiences.



Curious about what biomedical PhDs do for their career? In the "Beyond the Lab" video series, the BRET Office of Career Development interviews Vanderbilt PhD and postdoc alumni about their career path. All are publicly available on YouTube.

[HTTP://TINY.CC/BOTL](http://tiny.cc/botl)

The BRET Office of Career Development provides a CV/Resume Drop-in Clinic every Wednesday, from 12:30-1:30pm, in Light Hall, Suite 340. No appointment necessary... just bring a printed copy of your résumé, CV, cover letter, or LinkedIn profile.



POSTDOCTORAL  
**ASPIRE CAFÉ**  
FOR CAREER PLANNING



Postdoctoral ASPIRE Café for Career Planning sessions are offered twice a month to explore topics in career development and professionalism. Postdoctoral fellows are welcome to join us in an informal setting to meet with the ASPIRE team and find out how to become involved in ASPIRE programming.

The BRET Office of Career Development uses Twitter to publicize job postings for PhDs and postdocs in the biomedical and life sciences. Job opening notifications are for faculty, non-faculty, and postdoc positions. Check out [www.twitter.com/VUBRETPhDJobs](http://www.twitter.com/VUBRETPhDJobs).



9:00-9:10am

**WELCOME**

*Ballrooms*

KATHY GOULD, PHD

Associate Dean for Biomedical Sciences, Vanderbilt University School of Medicine

9:10-10:00am

**KEYNOTE ADDRESS**

*Ballrooms*

DAVE JENSEN

Managing Director, CTI Executive Search



**DAVE JENSEN**

Managing Director, CTI Executive Search

*Dave Jensen is a recruiter as well as popular speaker and author on topics related to careers in the life sciences, biotechnology, pharmaceuticals, nutrition and in the non-profit*

*sectors. His expertise comes from 30 years of experience in scientific and executive search.*

*Jensen is Managing Director for CTI Executive Search, a company he founded in 2001 after the successful sale of his business (Search Masters International) to a \$4B corporate services firm (Kelly Services of Troy, MI). From 2010 to 2015, Jensen was Managing Director for Kincannon & Reed, a retained executive search firm with 32 years experience in life sciences, agricultural sciences, and non-profit sectors. Earlier in his career, Jensen developed a life sciences search practice for Govig and Associates (Scottsdale, AZ), with the focus on biotechnology.*

*Dave Jensen's monthly column "Managing Your Career"*

*has been a visible part of the biotech industry for more than 25 years; the column ran for twelve years in BioPharm International and is now in Contract Pharma where Jensen is Contributing Editor. He has published over 350 topics on personal development and scientific management, along with regular features in C&E News and other journals. He is on the editorial advisory board of Journal of Commercial Biotechnology.*

*Mr. Jensen has delivered seminars and workshops in industry meetings internationally, including keynote presentations at career events held by major universities around the world, including at University of California locations, National University (Singapore), National Institutes of Health, the U.S. Environmental Protection Agency, Johns Hopkins, Karolinska Institute (Stockholm), University of Washington, and both Princeton and Harvard.*

*Jensen writes the popular "Tooling Up" column in the website for the journal SCIENCE for monthly career tips and techniques (ScienceCareers.org). He is also the founder and moderator of the AAAS Science Careers Discussion Forum, a website of the Association for the Advancement of Science (AAAS) website that has been a resource for young scientists for more than 25 years.*

TEXT YOUR QUESTIONS FOR MR. JENSEN TO  
**615-804-4740.**

10:10-11:10am

PANEL 1

JT BROGAN, PHD · DAN HUTCHESON, PHD  
 FATIMA JONES, PHD · LAURIE VANDERVEEN, PHD

**JT BROGAN, PHD**

Manager, Global Emerging Markets Regulatory Affairs CMC, Biogen

*JT (John Trevor) Brogan is a Manager in the Global Emerging Markets Regulatory Affairs CMC (Chemistry, Manufacturing, and Controls) group at Biogen Inc. JT completed his undergraduate and graduate education at Vanderbilt, receiving a BS in Chemistry and English in 2008 and a PhD in Chemical and Physical Biology with Dr. Craig Lindsley in 2013.*

*After completing a one year postdoctoral fellowship in the Vanderbilt Center for Science Outreach, JT joined the Biogen Manufacturing Sciences and Regulatory Affairs CMC postdoctoral fellowship program. For the first year of his postdoc, JT joined the Biogen Cambridge Manufacturing Sciences group and served as the cell culture lead for two Plegridy® biopharmaceutical manufacturing campaigns while completing several projects to help improve manufacturing processes. In June 2015, for the second year of his postdoctoral*

*fellowship at Biogen, JT transitioned to the Regulatory Affairs CMC team, where he worked on post-approval changes for currently approved product filings in Japan. JT also worked on the US Investigational New Drug (IND) amendment for opicinumab, a Biogen monoclonal antibody currently in Phase II clinical trials. In March 2016, JT accepted an offer to join the Biogen Regulatory Affairs CMC team as a Manager in the Global Emerging Markets CMC group, where he currently works to file Biogen products for commercial approval in emerging markets around the world.*



**DAN HUTCHESON, PHD**

Research and Development Liaison Officer, Indivior

*Originally from England, Dan earned his Bachelor's degree in Pharmacology & Toxicology from the University of Bradford (Yorkshire, UK), obtained his Ph.D. degree from Cardiff*

*specialized non-clinical models with high translational value covering neuroscience and other major disease areas.*

*Dan was then recruited to join the Pfizer Neuroscience research unit in its new location in Cambridge (MA, USA) taking the post of Chief Operating Officer (Senior Director) in 2012. Reporting to the Chief Scientific Officer, he was responsible for all business and laboratory operations including core laboratory capabilities.*

*University (Wales, UK), and earned his executive MBA from the University of Chicago Booth School of Business in 2012.*

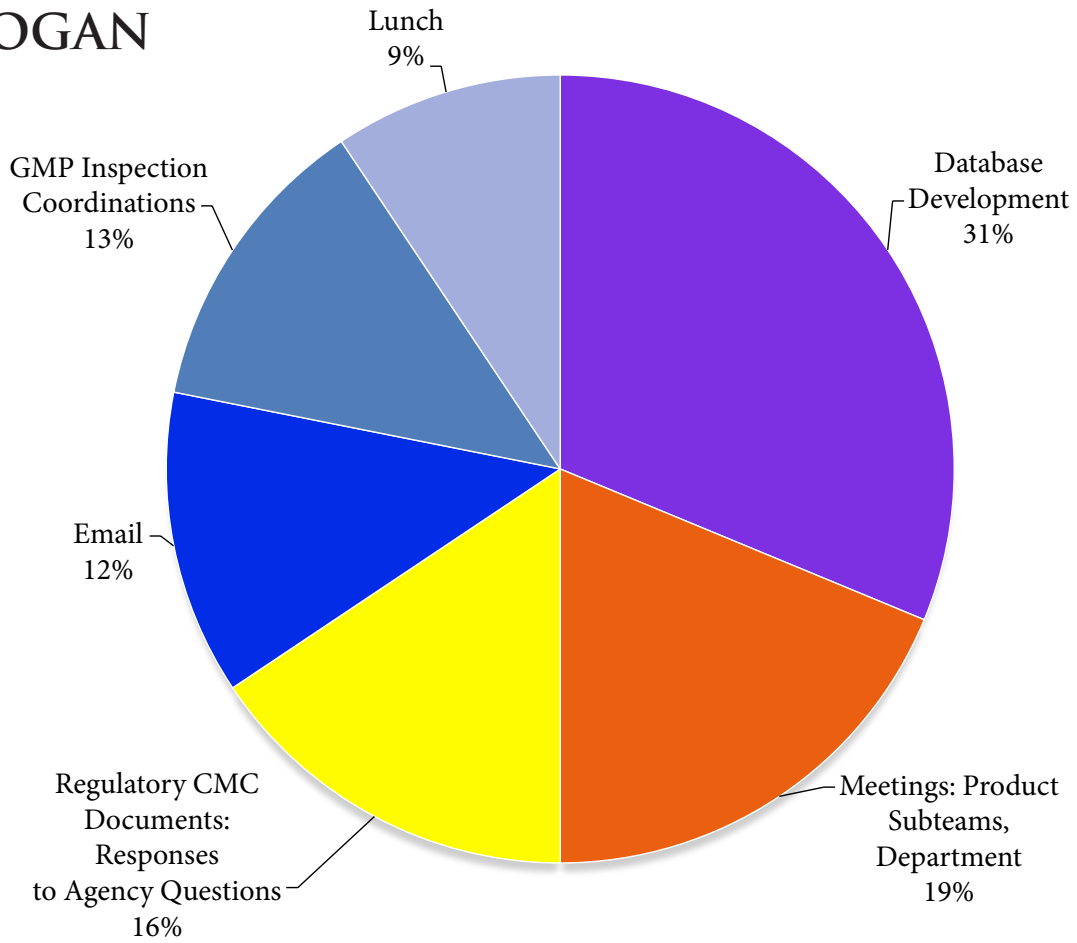
*In 2014, Dan relocated to Switzerland to join a newly formed Portfolio Planning and Decision Analysis group supporting project teams by providing commercial valuations for asset teams and strategic advice in Neuroscience, Ophthalmology and Rare Disease within Hoffmann-La Roche.*

*Dan started his career with a Medical Research Council Training Fellowship (1998) in the Department of Experimental Psychology at the University of Cambridge (UK) and was elected a Research Fellow of Hughes Hall College in 2000. In 2003, Dan joined GlaxoSmithKline's Psychiatry Division in Verona (Italy) where he led drug discovery projects to treat addiction.*

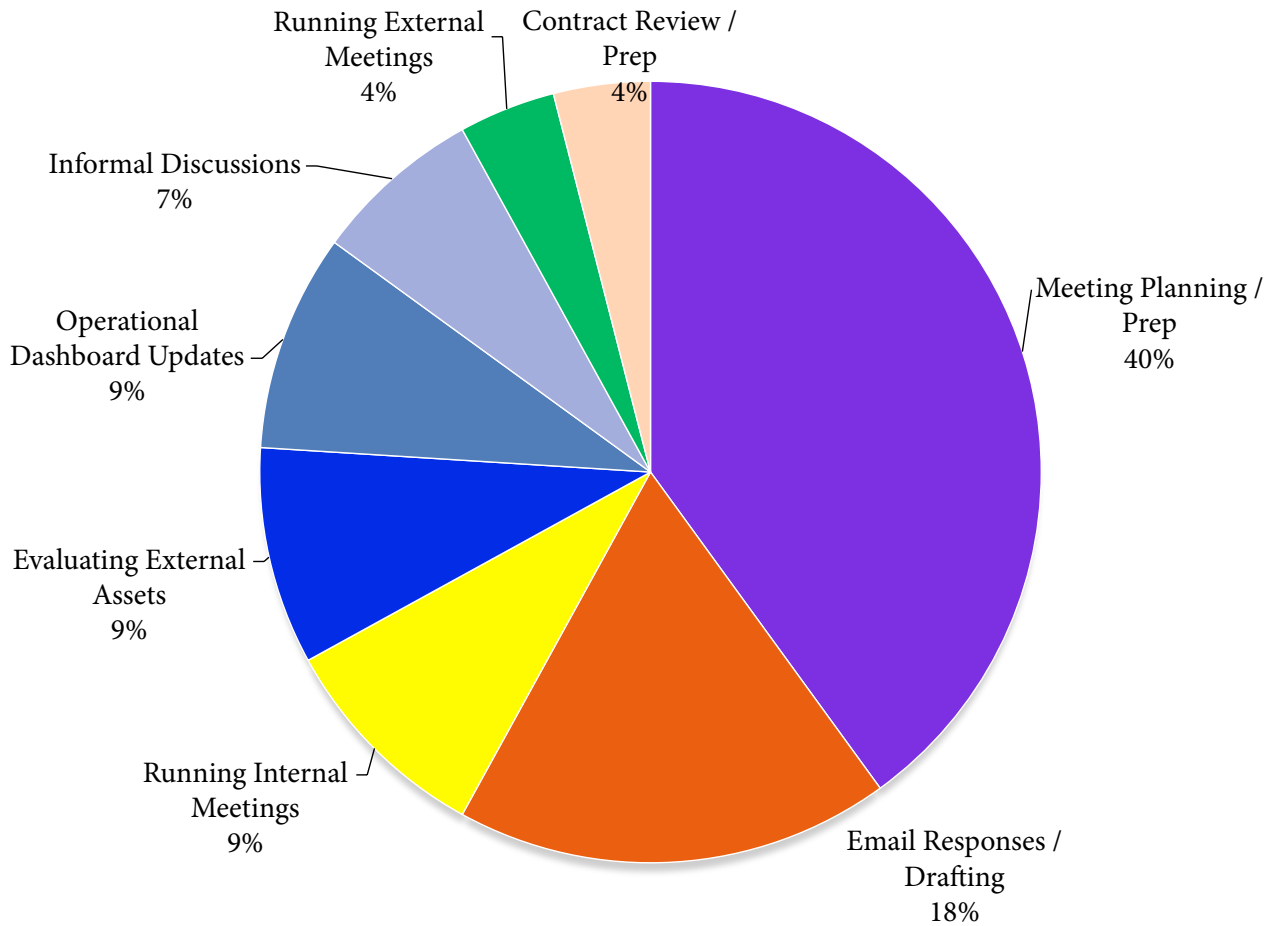
*Late in 2015, Dr. Hutcheson joined the leadership of the Global R&D Organization of Indivior Plc serving as R&D Liaison Officer (Senior Director), reporting to the Chief Scientific Officer. In his new role Dan facilitates communication across the R&D organization, ensuring alignment among all key stakeholders, and liaising with all relevant aspects of organizational Finance, Strategic Planning, M&A and Commercial operations to strengthen the R&D strategy and capabilities globally.*

*In 2007, Dan moved to Singapore to join Maccine Ltd. where he became the Director of Discovery Research. His team successfully served pharmaceutical firms worldwide using*

DR. BROGAN



DR. HUTCHESON



## FATIMA JONES, PHD

Senior Study Director, Laboratory Specialist, Westat

*Dr. Fatima Jones is a project director and laboratory specialist with over 17 years of experience in laboratory research and quality management. At Westat, she provides laboratory expertise to support ongoing clinical research studies. She works with participating laboratories to develop, document, and implement standardized procedures for protocol-specific assays; assists in designing proficiency testing programs; conducts laboratory site audits; facilitates laboratory-specific trainings; and monitors laboratory procedures to ensure quality and regulatory compliance.*

*Before joining Westat, Dr. Jones was assistant project director for the National Institute of Health (NIH) AIDS Reagent Program, a biorepository of more than 8,500 unique reagents for the study of HIV and related opportunistic infections. She worked with NIH staff and led researchers to identify and*

*solicit novel reagents to support ongoing HIV/AIDS research, managed laboratory subcontractors, wrote SOPs and other technical documentation, and supervised and trained staff.*

*Previously, Dr. Jones was a postdoctoral research scientist in the National Cancer Institute's (NCI) HIV-1 Drug Resistance Program. In addition to her project and program management experience, Dr. Jones offers expertise in laboratory quality management (Good Clinical Laboratory Practice, ISO15189), assay development, and quality assurance and control.*



## LAURIE VANDERVEEN, PHD

Senior Scientist, Nektar Therapeutics

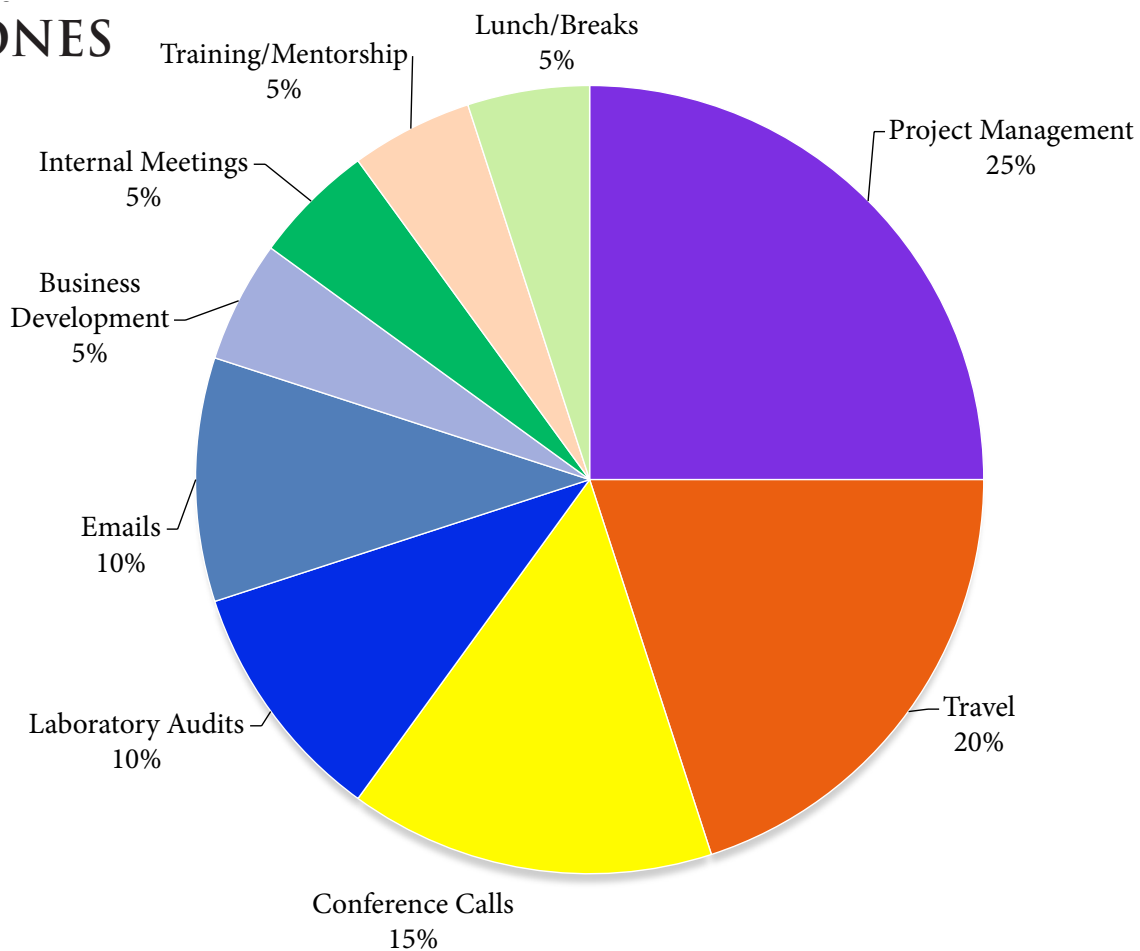
*Dr. Laurie VanderVeen received her Ph.D. in Biochemistry from Vanderbilt University under the mentorship of*

*Dr. Lawrence J. Marnett, where she studied the mutagenicity of oxidative DNA adducts. Moving from basic research to industry, she completed her postdoctoral training at Roche Palo Alto, studying cellular mechanisms of drug-induced toxicity.*

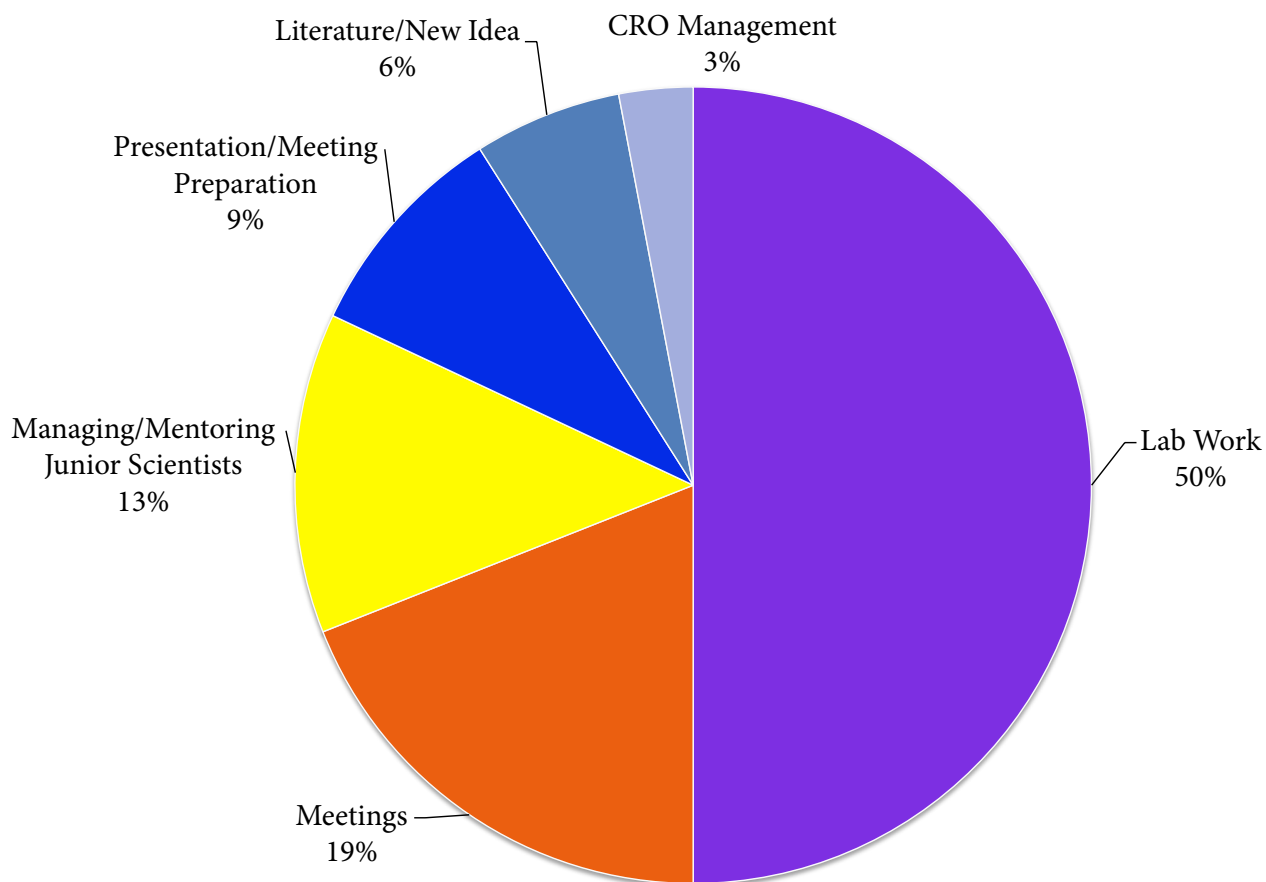
*In 2008, Dr. VanderVeen joined the Research Biology organization at Nektar Therapeutics, a biotechnology company in San Francisco. As a Senior Scientist, her primary responsibilities include overseeing in vitro screening and mechanism-of-action studies for multiple preclinical-stage research programs. She is also experienced in new product opportunity evaluations. As a Project Team Leader at Nektar, Dr. VanderVeen also leads cross-functional teams responsible for the selection of small- and large-molecule development candidates in virology and infectious diseases.*

TEXT YOUR QUESTIONS FOR THE PANEL TO  
**615-804-4740.**

### DR. JONES



### DR. VANDERVEEN



11:10-12:10pm

## PANEL 2

RAUL CAMACHO, PHD · EMILY RUBINSON, PHD · STEVEN SANDERS, PHD

### RAUL CAMACHO, PHD

Principal Scientist, Cardiovascular & Metabolism, Janssen Research and Development

*Dr. Raul Camacho began his research career working for two years as an undergraduate (one of which was as a Ronald E. McNair Scholar) in the laboratory of Dr. Michael Sturek at the University of Missouri, studying vascular smooth muscle cell calcium regulation and glucose metabolism in a diabetic dyslipidemic swine model.*

*In 2004, he obtained his PhD in the department of Molecular Physiology in the laboratory of Dr. David Wasserman, at Vanderbilt University School of Medicine. His doctoral research focused on in vivo glucose metabolism and insulin action in a variety of models, including canines, rats, and transgenic mice.*

*His postdoctoral studies were at Albert Einstein College of Medicine in the laboratories of Dr. Luciano Rosetti and Dr. Gary Schwartz, investigating hypothalamic control of hepatic glucose metabolism and energy balance in rats and transgenic mice.*

*Dr. Camacho's professional career began in 2007 as an Associate Principal Scientist at Merck Research Laboratories in the Diabetes and In Vivo Pharmacology departments, where he worked on developing small molecule and peptide compounds, and testing them across an array of in vivo models (mice, rats, dogs, pigs, and non-human primates).*

*In 2013, Dr. Camacho moved to Janssen Research and Development as a Principal Scientist in the Cardiovascular & Metabolism department. There, he has worked on large molecule/biologics, leading a preclinical project to transition for first in human testing.*

*Dr. Camacho is a member of the American Diabetes Association, American Physiological Society, serves as an ad hoc reviewer for Diabetologia, American Journal of Physiology: Endocrinology & Metabolism, Journal of Applied Physiology, Metabolism: Clinical and Experimental, and Physiology & Behavior, and has published 17 manuscripts and reviews.*

### EMILY RUBINSON, PHD

Research and Development, Avon

*Dr. Emily Rubinson came to Avon Research & Development in 2012 with a B.S. in Chemistry from Emory University and a PhD in Chemical and Physical Biology from Vanderbilt University.*

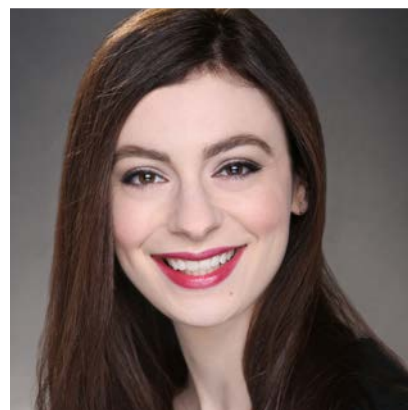
*Prior to joining Avon, she gained experience mentoring junior scientists and managing collaborative projects while expanding her scientific understanding as a postdoctoral research fellow, also at Vanderbilt University.*

*At Avon she has taken a lead role in the development of technical models to help identify technologies that elevate product performance and thereby delight the Avon consumer. Her contributions to an upcoming make-up launch were instrumental to her and the teammates being recognized with a 2014 Avon Global R&D Distinctive Achievement Award. Currently, she drives cross-functional teams to identify and*

*deliver against unmet consumer needs leading to new product innovation.*

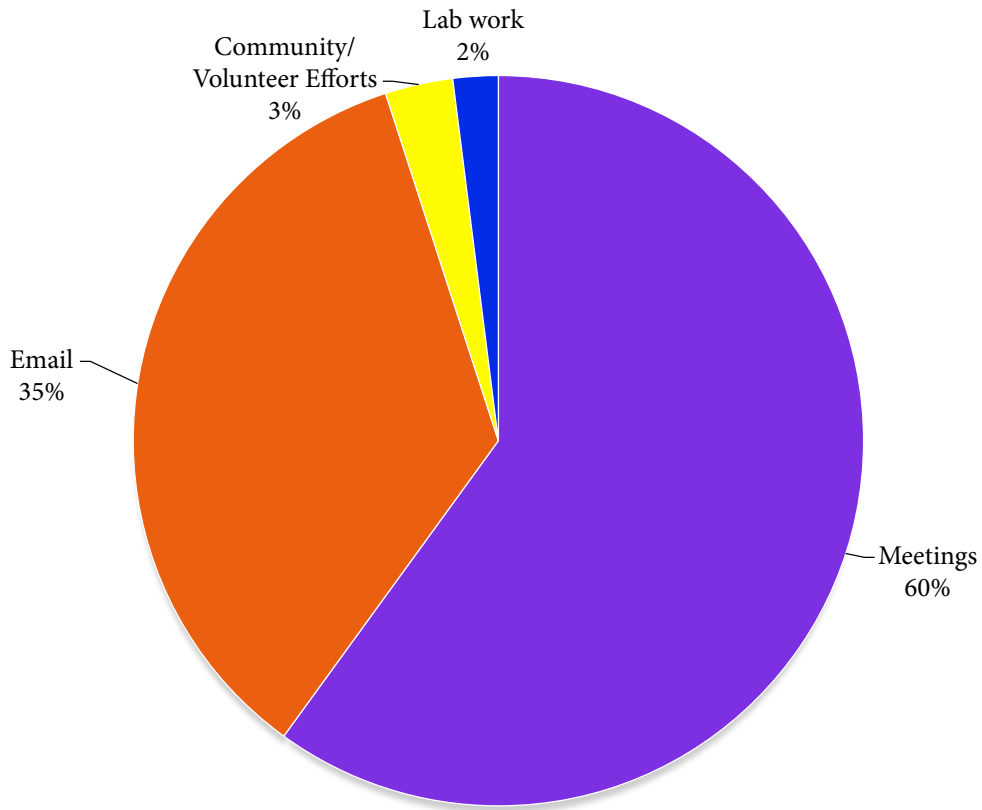
*In addition to her technical responsibilities, Dr. Rubinson has been active in the development of junior research scientists. She manages two junior PhD level scientists and was integral to revitalizing the Avon Research & Development mentoring program with HR colleagues.*

*Dr. Rubinson is also active in promoting STEM education and was recently featured in a video, "On the Job: Biochemist" by CliffsNotes.com, that will be played in high school classrooms around the country on Channel One News.*

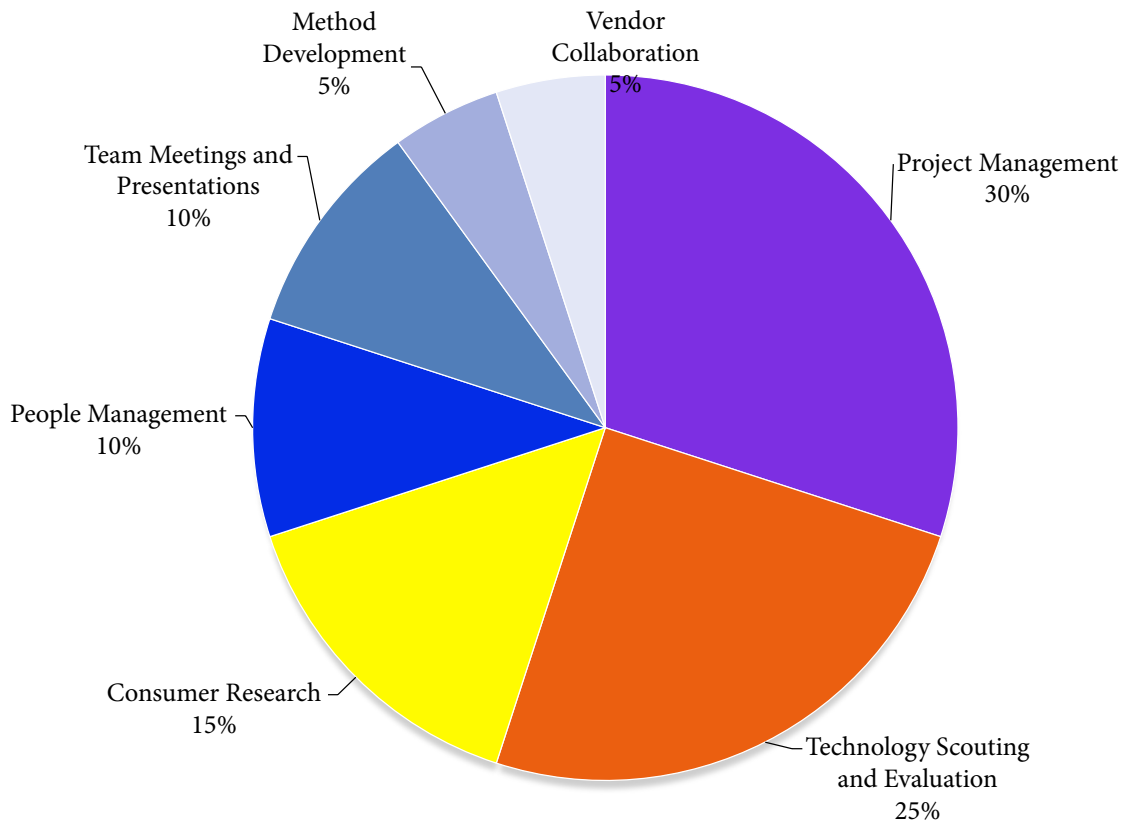


PANEL 2  
PANEL 2

DR. CAMACHO



DR. RUBINSON



# PANEL 2



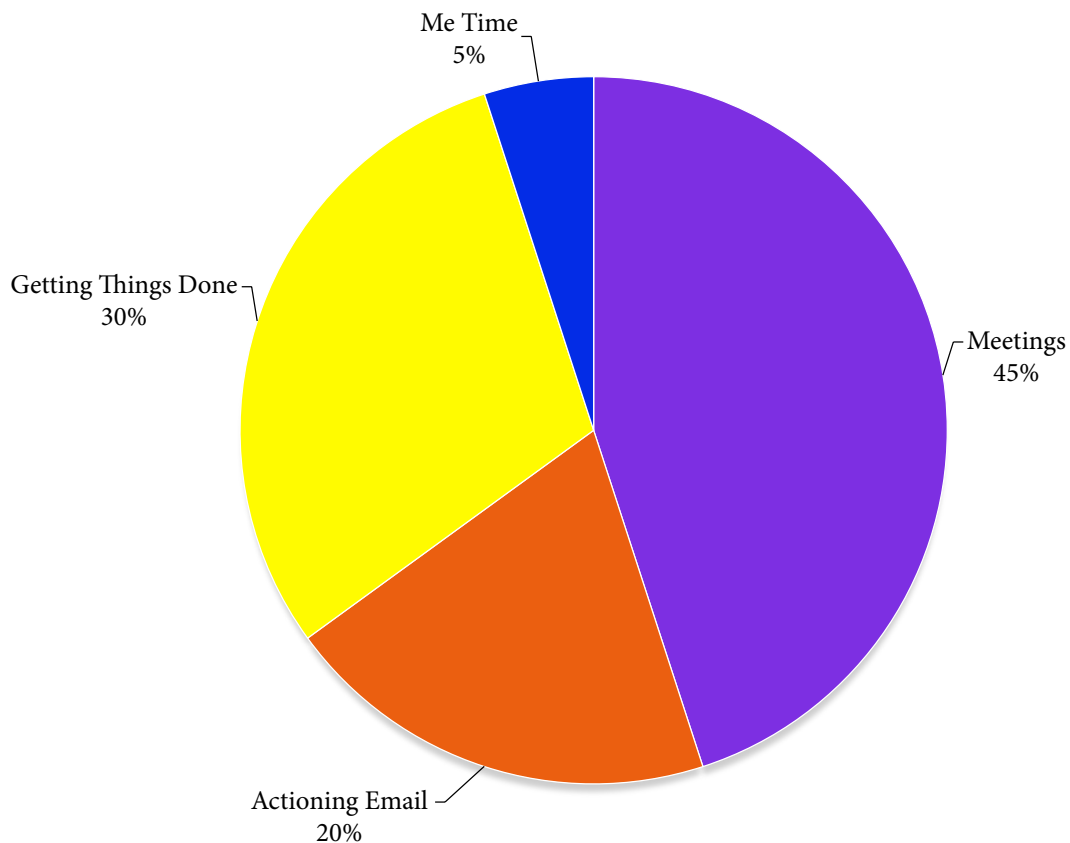
## STEVEN SANDERS, PHD

Director, Molecular Biology, Cibus

Dr. Sanders earned his PhD from Vanderbilt University School of Medicine and then went abroad for a Research Fellowship at the University of Cambridge in the UK. After returning to the US he joined the faculty in the School of Medicine at Case Western Reserve University, and later the Cleveland Clinic. In 2012 he joined Cibus where as Director of Molecular Biology he plays a leading role in R&D efforts using Cibus' patented RTDS gene editing technology across multiple crop and microorganism programs. During his career Dr. Sanders has published key discoveries to understand transcription control and the link between epigenetic modification and DNA damage response in numerous articles appearing in journals such as Cell, EMBO, MCB and JBC. He has helped author several patent applications, won multiple funding awards at the local, national and international level and served as an invited reviewer for many journals and the National Science Foundation.

TEXT YOUR QUESTIONS FOR THE PANEL TO  
**615-804-4740.**

### DR. SANDERS



HOW WE SPEND OUR WORK DAYS

# LUNCH SESSION

12:30-1:15pm

## LUNCH SESSION

*Training Opportunities in Industry with Dale Edgar, PhD*



### DALE EDGAR, PHD

Research and Development Liaison Officer, Indivior

*Dr. Dale Edgar is an experienced scientist, drug hunter and entrepreneur who recently retired as an executive leader at Eli Lilly and Company. He is also a renowned expert in sleep disorders research and development. Leveraging his experience across academia, biotech and big-pharma, Dr. Edgar currently provides consulting services to academia, industry, government, aspiring entrepreneurs and biotech start-ups, fostering partnerships and innovation in the Health Sciences.*

*Dr. Edgar previously served as Chief Scientific Leader of Discovery Sleep Research at Eli Lilly and Company – a cross-functional preclinical and clinical R&D function focusing on innovative medicines for sleep disorders and sleep-related comorbidities in psychiatry, pain, neurodegenerative disease, and metabolic disease. Prior to joining Lilly, Dr. Edgar was Co-Founder, Senior Vice President and the Chief Science & Technology Officer of Hypnion Inc (Lexington, MA) – a spin-out of the science and technologies he developed at Stanford University.*

*Dr. Edgar is a member of the Harvard Medical School Division of Sleep Medicine Executive Council, the ASPIRE Advisory Committee at Vanderbilt University School of Medicine, and the NeuroNET Advisory Committee at UT Knoxville. He has previously served as an officer of the Sleep Research Society (USA) and on Editorial Boards of the journal Sleep, and the Journal of Biological Rhythms.*


TEXT YOUR QUESTIONS FOR DR. EDGAR TO  
615-804-4740.

CONCURRENT SESSIONS

<b>CONCURRENT SESSIONS</b>	
1:30-2:15pm SESSION 1	
<b>GROUP A</b> <i>Board of Trust Room</i> <b>INDUSTRY JOB SEARCH TIPS WITH DAVE JENSEN</b>	<b>GROUP B</b> <i>Ballrooms</i> <b>NETWORKING HUDDLES WITH SPEAKERS AND LOCAL COMPANIES</b>
2:30-3:15pm SESSION 2	
<b>GROUP A</b> <i>Ballrooms</i> <b>NETWORKING HUDDLES WITH SPEAKERS AND LOCAL COMPANIES</b>	<b>GROUP B</b> <i>Board of Trust Room</i> <b>INDUSTRY JOB SEARCH TIPS WITH DAVE JENSEN</b>

CLOSING SESSION

3:25-4:10pm  
**CLOSING SESSION** *Ballrooms*



**DAVID TELLERS, PHD**  
 Research and Development Liaison Officer, Indivior

*Dr. David Tellers received his Ph.D. from U.C. Berkeley under the guidance of Professor Robert G. Bergman. In 2001, he joined Merck working in both the Department of Chemical Engineering and Process Research where he focused on route development, catalysis, and automation. He made contributions to multiple programs, including Emend™, Januvia™, Cordaptive™, and Vaniprevir™. In 2008, he transferred to the Department of Medicinal Chemistry where he has had the opportunity to work on oligonucleotide and peptide delivery, early and late stage neuroscience and infectious disease programs, and chemical biology. David currently leads the recruiting efforts for Medicinal Chemistry.*

TEXT YOUR QUESTIONS FOR DR. TELLERS TO  
**615-804-4740.**

4:15-5:15pm  
**NETWORKING RECEPTION**  
*Featuring all speakers and employers  
 Ballroom and Veranda*

# NETWORKING HUDDLES & RECEPTION GUESTS

The BRET Office of Career Development is excited to welcome 12 local companies to today's career symposium. We hope you will take this opportunity during the Networking Huddles to learn more about the companies, the employees who work there, and how they contribute to the life science industry.

Here are some optional questions to use when you are speaking with companies, either at the Networking Huddles or Reception:

- What makes you excited to work for your company?
- What kinds of skills and experience do you look for in the employees you hire?
- What are the characteristics of your most successful employees?
- Which courses or experiences do you suggest to be a successful candidate?
- How would you describe the Nashville industry landscape in ten years?
- What are the backgrounds of other employees in your company or department?

THE FOLLOWING COMPANIES WILL BE IN ATTENDANCE:

- AEGIS SCIENCES CORPORATION
- AXIAL HEALTHCARE
- BERG HEALTH
- BENCHFLY
- CUMBERLAND PHARMACEUTICALS
- CUMBERLAND EMERGING TECHNOLOGIES
- INSIGHT GENETICS
- INVSIONHEART
- NASHVILLE BIOSCIENCES
- NUSIRT
- NEXT GDX
- SARAH CANNON RESEARCH INSTITUTE
- VICTR

## LOCAL COMPANIES

### AEGIS SCIENCES CORPORATION

[www.aegislabs.com](http://www.aegislabs.com)

Aegis Sciences Corporation is a laboratory sciences company providing science-driven testing and consulting services for clients such as healthcare providers, pharmaceutical companies, professional and amateur sports organizations, leading college and university athletic programs, medical examiners, Fortune 500 corporations, and government agencies throughout the United States.

*In attendance:*

- Kara Allen, Manager, Recruitment and University Relations
- David Black, PhD, Founder and CEO
- Anne-Marie Colapietro, Senior Recruiter

### AXIALHEALTHCARE

[www.axialhealthcare.com](http://www.axialhealthcare.com)

axialHealthcare is a cloud-based healthcare solutions company. We have pioneered an evidence-driven, predictive pain management solution that empowers insurers and equips healthcare professionals with the ability to curb the overuse of opioids, align expenses, ensure safety, and attain optimal pain patient outcomes. Our mission is to improve the well-being of patients in pain while creating value for our partners. We have 25 employees and are located in downtown Nashville, Cummins Station.

*In attendance:*

- BettyAnn Chodkowski, PhD, Senior Data Scientist
- Lindsey Morris, PhD, Director of Data Science and Analytics

### BENCHFLY

[www.benchfly.com](http://www.benchfly.com)

Since 2009, BenchFly has provided open access and private platforms to labs and companies allowing researchers worldwide to communicate via the universal language—video. Recently, BenchFly launched The ART of Video, an NSF-funded project targeting high school students, to develop the critical thinking and communication skills necessary to support the next generation of scientists. BenchFly is located in Nashville and has 10 employees.

*In attendance:*

- Alan Marnett, PhD, CEO

### BERG

(networking huddle only)

<http://berghealth.com/>

Berg is a Boston-based biopharma company focused on taking a bold “back to biology” approach to therapeutic discovery using its unique AI-based Interrogative Biology® platform. This platform combines patient biology and artificial intelligence-based analytics to engage the differences between healthy and disease environments. The Nashville-based Berg Protein Sciences Department supports the research and development efforts of the company. Berg’s mission is to improve the lives of patients. We believe that our drug candidates and diagnostics will result in faster clinical validation and safer, more effective therapies for patients worldwide.

*In attendance:*

- Rockann Mosser, PhD, Scientist II in Protein Sciences
- Maria McGresham, PhD, Scientist II in Protein Sciences

## INSIGHT GENETICS

[www.insightgenetics.com](http://www.insightgenetics.com)

Insight Genetics is dedicated to improving the lives of cancer patients around the world through advanced diagnostics for precision cancer care.

We are a molecular diagnostics company that is working to further precision cancer care at times of diagnosis, treatment and therapeutic resistance. We specialize in the discovery, development and commercialization of companion diagnostics. In addition, Insight Genetics' CLIA-certified Insight Molecular Labs provides unique, high-value cancer testing services to oncologists and pharmaceutical companies.

A key priority in cancer care today is increasing the effectiveness of cancer treatment through a new generation of therapies that are targeted to specific genetic biomarkers. Fast, accurate and comprehensive tests – called companion diagnostics – are required to make these targeted therapies possible. These tests help clinicians pinpoint which targeted therapies may or may not work for a particular patient.

We operate at the intersection of drug development and patient care. With a high level of scientific expertise and assay development capabilities, as well as CLIA and GLP testing services, Insight Genetics spans the spectrum of discovery, testing, and commercialization of companion diagnostics. Insight is dedicated to developing new technologies and diagnostic tests that will become cutting-edge clinical products.

Insight Genetics is located in Nashville, TN with over 20 employees.

*In attendance:*

- David Hout, PhD; Vice President – Research and Development
- Brock Schweitzer, PhD; Primary Scientific Lead

## NUSIRT

<http://nusirt.com>

NuSirt BioPharma is a privately held biopharmaceutical company headquartered in Nashville TN with research labs in Knoxville, TN. NuSirt is focused on the development of novel drugs for the treatment of metabolic disorders including Diabetes, Nonalcoholic steatohepatitis (NASH), obesity and hyperlipidemia. NuSirts platform technology is based on the natural product leucine and uses leucine with a very low dose of other known therapeutic agents for the treatment of disease. NuSirt has recently completed a clinical study on the treatment of type II diabetes and is currently running a clinical study for the treatment of NASH. Clinical results are expected in Q4 2016 and if successful NuSirt will move this program to a phase 3 clinical study.

*In attendance:*

- Mary Kosinski, PhD, Director of Clinical Operations
- Omar Flores, PhD, MBA, Director of Clinical Research/  
Director of Finance

## NASHVILLE BIOSCIENCES

[www.nashvillebiosciences.com](http://www.nashvillebiosciences.com)

NashBio is a biotech startup that is fundamentally changing drug discovery and development processes in biopharma. Originally spun out of Vanderbilt University Medical Center (VUMC), it is the only company of its kind that leverages a large databank of rich longitudinal clinical data and genomic information collected by VUMC over more than a decade to address pressing R&D questions for clients in the biopharmaceutical industry. The dataset is the largest and highest quality of its kind providing an unprecedented opportunity to glean useful and valuable information from gene-disease associations. The company leverages this massive databank, along with unique computational methods developed at VUMC, to offer a range of precision medicine services to biopharma, including accelerated R&D activities and more efficient clinical trial design.

*In attendance:*

- Leeland Ekstrom, PhD, Chief Business Officer
- Erin Sundaram, PhD, Genomic Scientist
- Jamie Wenke, PhD, Genomic Scientist

## NEXT GxDX

[www.nextgxdx.com](http://www.nextgxdx.com)

NextGxDx is a healthcare technology company dedicated to making genetic testing more transparent and efficient for stakeholders across the healthcare system.

With more than 60,000 genetic tests on the market, the selection, delivery and reimbursement of genetic testing is more complicated than ever. With scattered information about testing products, inconsistent ordering processes, and inefficient coding and billing systems, there is a growing need for tools to navigate this explosive field. NextGxDx launched as an IT company dedicated to enhancing the transparency of genetic testing data and streamlining processes related to genetic test ordering, payment and management for healthcare providers, laboratories and health insurers.

With an outstanding team of physicians, researchers, web developers, data scientists and software engineers, NextGxDx launched its proprietary GeneSource, GeneConnect and GenePayer solutions to provide data and tools for end-to-end genetic testing management, from searching and comparing testing products, to tracking orders and results, to payment integrity and forecasting trends in pricing and utilization.

As the genetic testing resource, NextGxDx provides comprehensive, intuitive solutions that address the specific challenges faced by the medical community.

*In attendance:*

- Jud Schneider, PhD, VP of BioInformatics

## SARAH CANNON RESEARCH INSTITUTE

Sarahcannon.com

Sarah Cannon, the global cancer enterprise of Hospital Corporation of America (HCA), offers integrated cancer services with convenient access to cutting-edge therapies for those facing cancer in communities across the United States and United Kingdom.

By bringing together a network of renowned cancer experts, we are collaborating and sharing best practices that address every aspect of the cancer journey from screening and diagnosis through treatment and survivorship so that patients can receive quality care with improved outcomes.

Our research arm, Sarah Cannon Research Institute (SCRI), formed more than 20 years ago to ensure patients could access cutting-edge therapies closer to home. In partnering with leading pharmaceutical/biotech companies and investigators, we offer more than 500 clinical trials annually.

Collectively, our comprehensive patient-centric services ensure that we are fulfilling our mission to advance science and transform care.

*In attendance:*

- Anthony Fleming, Manager – Talent Acquisition
- Nick Durham, Sr. Recruiter

## VICTR

Starbrite.vanderbilt.edu

The Vanderbilt Institute for Clinical and Translational Research (VICTR) is Vanderbilt's virtual home for clinical and translational research. Supported by the Vanderbilt Office of Research and the NIH sponsored Clinical and Translational Science Award (CTSA), the mission of the institute is to transform the way ideas and research discoveries make their way from origin to patient care. This is accomplished using a multi-faceted approach: through collaboration with a wide variety of research partners; by training, nurturing and rewarding participating researchers; by funding research; by developing new and innovative ways to involve the community in research; by developing new informatics and biostatistical systems; and by making available the latest technologies and sound research results affecting patient care.

*In attendance:*

- Sarah Collier, PhD, BioVU Project Manager
- Henry Ong, PhD, Health Information Systems Project Manager
- Robert Lavieri, PhD, Health Information Systems Project Manager

## CUMBERLAND PHARMACEUTICALS, INC.

<http://www.cumberlandpharma.com/>

Cumberland Pharmaceuticals is a specialty pharmaceutical company that acquires, develops and commercializes branded prescription products designed to improve quality of care and address unmet medical needs.

With a focus on underserved niche markets, including hospital acute care and gastroenterology, we deliver products that serve patients in the U.S. market. Cumberland also makes its products available to patients internationally through select strategic partnerships.

We own the worldwide rights to all our brands. While Cumberland's commercial capabilities are focused on the U.S. market, our business development team is actively pursuing opportunities to make our brands available to patients in markets around the globe.

Our primary mission is to improve upon patient care with products that offer clear advantages over existing treatments. We also strive to deliver solutions that may help reduce costs for healthcare providers and, ultimately, patients.

*In attendance:* Ines M. Macias-Perez, PhD, Lead Scientist, Product Development

## CUMBERLAND EMERGING TECHNOLOGIES, INC. (CET)

[www.cet-fund.com](http://www.cet-fund.com)

CET was established in 2000 and is a joint initiative between Cumberland Pharmaceuticals Inc., Vanderbilt University, Launch Tennessee, and Gloria Pharmaceuticals. CET is a technology development company with dual missions to advance the development of innovative biomedical technologies and stimulate business growth and economic development within Tennessee, locally and regionally. The missions serve a common goal to bring new biomedical products into the commercial marketplace. Technology development is achieved through forming development partnerships, providing a business infrastructure designed for early stage biomedical companies, and harnessing appropriate resources in the corporate, academic, governmental and non-profit sectors.

*In attendance:*

- Andrew Vila, PhD, Formulation Scientist, CET
- Diane S. Keeney, PhD, Program Specialist, CET

## NETWORKING RECEPTION ONLY

INVISIONHEART • [www.invisionheart.com](http://www.invisionheart.com)

InvisionHeart Inc. is developing a cardiac data solution that serves clinicians who care for heart patients. Our technology enables physicians, nurses, and care providers to capture, communicate, and utilize patient ECGs in a manner that is both more efficient and cost effective than the current standard of care. The secure cloud platform at the center of our

technology enables a network of physicians, nurses, technicians, and billing specialists to securely access and annotate patient ECG tracings. From credentialed mobile devices, a recipient can instantly access captured ECG tracings, as well as select alerts and push notifications to aid the rapid turnaround of completed reports by busy practices and hospital departments.

*In attendance:* Josh Nickols, PhD, MBA, CEO

## SCIENCE CAREERS IN INDUSTRY: TOP TEN MYTHS

Post written by Brad Fackler, MBA

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When you have primarily worked in an academic setting, any other work path can seem like a confusing and scary venture. Many scientists consider career options in industry; however they often worry about what this transition will be like. Here are the top ten myths I often hear about an industry career in science.

### 1. *I will have my project “yanked away.”*

This thought is often repeatedly shared, but most of the industry scientists I have talked to have categorically denied this! In industry, projects often change for two basic reasons: 1. Your research was successful and the compound has moved on to a clinical trial. 2. Your project was unsuccessful and no further work is warranted at that time. In both of these scenarios, an individual is generally given months advance notice for future planning. Moreover, you will likely be moved to a project where your skills and expertise can best be leveraged because most companies and bosses want employees who are scientifically engaged and happy. After all, that helps with productivity in the end.

### 2. *It is all about the money.*

Funding is needed to make science happen, whether in the private or public sector and the total budgets between the two are pretty comparable. The fiscal year 2016 NIH research budget is \$32,300,000,000, with this total accounting for extramural (grants awarded to more than 300,000 researchers at more than 2,500 universities, medical schools, and other research institutions) as well as intramural research spending. In comparison, the sum of the top four pharma company's R&D budgets in 2015 was \$35,600,000,000. The breakdown is: Roche at \$10.2B, Novartis at \$9.3B, Merck at \$8.2B, and Pfizer at \$7.9B.

### 3. *Industry conducts “bad” science.*

Companies have to meet clear regulatory requirements by the FDA that academic labs generally aren't held to. Development of drug therapy has virtually eliminated once common diseases like plague, polio, smallpox, tuberculosis, measles, and chicken pox. The average life expectancy after a cancer diagnosis is now greater than ten years. With all of these advances, the average life expectancy in the US in 2015 is 80.6 for females and 75.9 for males. Compare that to the average US life expectancy 100 years prior in 1915 which was 56.8 for females and 52.5 for males. This increase in life expectancy has been attributed to better nutrition and the development of drug therapy.

### 4. *I will no longer be able to publish.*

Companies still publish findings. 5,585 science companies published 34,287 papers and 6,793 technology companies published 29,554 papers. For example, in the first quarter of 2016, MedImmune had 40 publications. Industry scientists also report that the pressure to publish is diminished from academia and that is often viewed as a positive.

### 5. *The work is not as satisfying.*

Well, if you transition from an NIH lab to an industry bench science position, then you will be doing exactly the same things whether that is satisfying to you or not. In industry positions, more emphasis is placed on meeting timelines and accomplishments,

and most companies prioritize team work in a collegial work environment. If for whatever reason that doesn't sound like a good fit for you personally and professionally, then it is might be necessary to question if industry is a good fit for you.

### 6. *There is more career change and I'll probably lose my job.*

Most careers are full of change and even PI jobs change too (ex. Assistant – Associate – Full). Industry does offer multiple career tracks, including level and salary increases within the lab or the option to progress into management. You can also transition to other company functions. Should you lose your job, most often companies offer placement services and severance options. Also, if working in industry, then it is likely that you are living in an area where there are other opportunities as well since most pharma and biotech companies are often clustered together geographically.

### 7. *What if I hate it?*

Many career decisions are fraught with worry. Remember that the choice you are making at the end of your training fellowship is for the next step in your career, not necessarily for the rest of your life. Pursuing an industry postdoc can help make you feel more comfortable about your decision to move into industry. Industry experience and pursuing new skill sets may help open doors to new opportunities and additional career choices, including returning to academia, which brings us to number eight...

### 8. *I can never go back to academia.*

In today's environment, there is growing pressure to increase the effectiveness and efficiency of product discovery and development which often leads to public-private partnerships (PPP's) and Industry-Academic partnerships like NCATS or Accelerating Medicines Partnership (AMP). This has increased the flow of technology, capital, and human resources among the public, private, and academic sectors and has helped blur the lines of what used to be a bigger divide.

### 9. *I will disappoint my PI and my graduate school mentors.*

Even if it might not always feel this way, the environment is beginning to change. Faculty review panels are starting to give “credit” for non-faculty career outcomes. Similarly, PIs are starting to understand the shortage of academic PI opportunities and the benefits of multiple career options for trainees. Always remember, it is you career/life to live – not theirs. If you need help having this discussion with your boss, read this post on “How to Talk to Your Mentor about a Career Change.”

### 10. *Not becoming a PI means I'm a failure.*

It can be incredibly hard to reframe one's internal thoughts about this; however, from an external perspective, this most definitely does not mean you are a failure. In fact, most employment statistics reveal you are in the majority. According to Saueremann and Roach (2012), more than half of entering biology PhD students had the career goal of becoming a research professor, but less than 10% of them went on to become a research professor.

Remember, that the best career advice often comes from people who are working within your aspired field/company/role, so if you are interested in industry, then talk to people doing that work. You might even find some of your own personal myths dispelled by these conversations.

## NOTES

## BRET Office of Career Development resources for graduate students

BRET Office of Career Development • [medschool.vanderbilt.edu/career-development](https://medschool.vanderbilt.edu/career-development)  
 ASPIRE Program • [medschool.vanderbilt.edu/aspire](https://medschool.vanderbilt.edu/aspire)  
 Career Development Blog • [medschool.vanderbilt.edu/career-development/blog](https://medschool.vanderbilt.edu/career-development/blog)  
 Career Development Newsletter • [medschool.vanderbilt.edu/career-development/newsletter](https://medschool.vanderbilt.edu/career-development/newsletter)  
 Twitter Job Feed @VUBRETPhDJobs

		Graduate Training Year			
		Year 1	Year 2	Year 3 (post qualifying)	Year 4+
Career Exploration	<i>Beyond the Lab</i> videos	★	★	★	★
	Career Symposium	★	★	★	★
	<i>PhD Career Connections</i>		★	★	★
	Career Case Sessions		★	★	★
Professional Development	IMPACT (IGP/QCB course)	◇			
	ASPIRE to Connect		◇	◇	◇
	ASPIRE to Plan			◇	**
	ASPIRE externship			◇	◇
	ASPIRE modules			◇	◇
	ASPIRE internship				◇

***Beyond the Lab***: series of video interviews with PhD and postdoc alumni who pursued various careers.

**Career Symposium**: 1-day event held each May featuring 12-15 speakers in various PhD-level careers.

***PhD Career Connections***: monthly seminar series about career options which features a speaker or panel.

**Career Case Sessions**: 1-hour discussion about a typical project in a career, led by a *PhD Career Connections* speaker.

**IMPACT**: required professional development course for IGP & QCB students.

**ASPIRE to Connect**: half-day workshop about professional networking, held annually each spring.

**\*\*ASPIRE to Plan**: short course about career planning, open to all students but ideal for 3<sup>rd</sup> year students.

**ASPIRE externship**: job shadowing experience for trainees to visit a company or employer for career exploration.

**ASPIRE modules**: non-credit short courses in business/entrepreneurship, communication, or clinical research.

**ASPIRE internship**: part-time or full-time work experience for trainees, *paid by the employer*, to gain hands-on experience relating to their career interests in a professional work environment, ideal for the last year of graduate training.

# Postdoctoral Fellows

## BRET Office of Career Development resources for postdoctoral fellows

BRET Office of Career Development • [medschool.vanderbilt.edu/career-development](https://medschool.vanderbilt.edu/career-development)  
 ASPIRE Program • [medschool.vanderbilt.edu/aspire](https://medschool.vanderbilt.edu/aspire)  
 Career Development Blog • [medschool.vanderbilt.edu/career-development/blog](https://medschool.vanderbilt.edu/career-development/blog)  
 Career Development Newsletter • [medschool.vanderbilt.edu/career-development/newsletter](https://medschool.vanderbilt.edu/career-development/newsletter)  
 Twitter Job Feed @VUBRETPhdJobs  
 LinkedIn group • Vanderbilt University Biomedical Research Graduate and Postdoctoral Trainees and Alumni

	Description	Timing	
Career Exploration	<i>Beyond the Lab</i> videos	Available any time online	
	Career Symposium	Annually at end of May	
	<i>PhD Career Connections</i>	Monthly during academic year	
	Career Case Sessions	Monthly during academic year	
Professional Development	ASPIRE Café	Twice monthly	
	ASPIRE to Connect	Annually in late winter or spring	
	ASPIRE to Plan	Once per semester	
	ASPIRE externship	As arranged with employer	
	ASPIRE modules	Periodically throughout year	
	ASPIRE internship	As arranged with employer	
		series of video interviews with PhD and postdoc alumni who pursued various careers	
		1-day event featuring 12-15 speakers in various PhD-level careers	
	seminar series looking at different career options which features a speaker or panel		
	1-hour discussion about a typical project in a career, led by a <i>PhD Career Connections</i> speaker		
	discussion of professional development exclusively for postdoctoral fellows; sessions alternate between a general orientation (ideal in the first 6 months of postdoctoral training but open to all) and a discussion of specific professional development topics.		
	half-day workshop about professional networking		
	short course about career planning, ideal for 1 <sup>st</sup> year postdocs, but open to all		
	job shadowing experience to visit a company or employer for career exploration		
	non-credit short courses in business/entrepreneurship, communication, or clinical research		
	part-time or full-time work experience, <i>paid by the employer</i> , or unpaid, to gain hands-on experience relating to career interests		

**Engage  
Connect  
Discover**

**BRET 25th Reunion  
June 1-2, 2017**

The Vanderbilt University School of Medicine Biomedical Research Education and Training (BRET) office is excited to invite you to its inaugural reunion event marking the 25th Anniversary of the Interdisciplinary Graduate Program (IGP) on June 1-2, 2017.

We will hold the Reunion in conjunction with the 2017 Annual Career Symposium hosted by the BRET Office of Career Development.

<https://medschool.vanderbilt.edu/bret/reunion>

Interested in helping us plan the reunion or 2017 Career Symposium?

Want your department, lab, or campus organization to be involved?

Email [kate.stuart@vanderbilt.edu](mailto:kate.stuart@vanderbilt.edu).