



It's been quite a year!

Early in January we launched monthly webinars, which bloomed to include several series on topics that are engaging our protean community. Key themes reflect diverse interests, capabilities, and emerging challenges. D2D: Data to Drugs & Diagnostics; The Mobile Patient; Flexible BioManufacturing; Global Collaboration to Address Ebola; Introduction to the Microbiome; and The Short Course in Extracellular Vesicles presented and attracted researchers from around the globe.

True to our mission to help bridge the many silos in biomedical research, we worked directly with collaborators from industry, academic, nonprofit, government, and supplier laboratories and their teams to build these valuable programs, which are all recorded and available on our website.

Our virtual programs led to a broader and more engaged audience for our in-person programs- the conference D2D: Data to Drugs & Diagnostics, June 11-12 in New Jersey, the Summer Session Meetup August 12, and Triangle Biotech Research Symposium III October 28 in Durham, NC. We also attended a number of conferences and symposia, introducing ourselves to a wider community, particularly in major pharmaceutical companies and universities.

As we have grown, we have benefited from partnerships with relevant organizations that have shared our news, provided shelter, collaborated on program development, and extended our reach. We have more than doubled the number of individuals we reach regularly, to more than 8,000.

We are particularly appreciative of the individual participants and organizations who have reached out to us to stimulate new programs. Many of them are noted throughout this Annual Report. We have some good ideas, but the great ones come from you!

Many seeds were sown that will emerge as new programs and activities in 2015. When we hold our Virtual Annual Meeting on February 19, 2015, you'll learn more about these fresh collaborations, and the generous energies that have made them possible.

I could not close the year without acknowledging the deep and earnest support of PlanetConnect Inc. As our Founding Sponsor and Producing Partner, PlanetConnect has provided expert guidance, superior staffing, a wealth of smart ideas, and general moral support. We couldn't do it without this foundational partnership.

And finally, thank you! As you peruse this report, I hope you will find yourself imagining ways to get involved. Feel free to attend and/or sponsor our activities, and don't be shy - you are hereby sincerely invited to contact me directly and we'll work together to find an enjoyable role for activating your interest.

Joanne Gere Executive Director



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"What you've accomplished with limited resources - it's phenomenal!" -Rich Brandwein, BRC Board Chair

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Recordings for almost all of our events can be found at: www.biopharmaresearchcouncil.org

On the Cover: "Fostering External Alliances to Drive IT Innovation in Pharma". Robert Boland, Directing Senior Manager of External Innovation R&D at Janssen Pharmaceuticals, delivering his keynote address at D2D: Data to Drugs & Diagnostics (June 11,12 2014).

# **Annual Meeting**

On January 29, 2014 we held our Annual Meeting at the beautiful Center for Dermal Research at Rutgers University. We awarded Outstanding Contributors, reviewed 2013, and shared our plans for the new year. It was a pleasure to meet face to face with many of our community members whom we had only known by voice and email.

#### 2013 Awards

Terry Stouch President Science for Solutions

Outstanding Contributor to: The Scientific Advisory Board and the Growth of the BRC

Sam Kogsamut, Ph.D. Principal Rudder Serendip LLC

Outstanding Contributor to: The Scientific Advisory Board and the Growth of the BRC

Teri Conte Region Manager FUJIFILM Visualsonics

Outstanding Contributor to: BRC Forums on Emerging Technologies Gabor Fari Director, Business Development and Strategy Health & Life Sciences Microsoft

Outstanding Contributor to: Information Technology Development

George Karam Global External Research Lead Pfizer Pharmatherapeutics

Outstanding Contributor to: The Development of BRC Best Practices in Outsourcing

Jack Heslin Enterprise & Key Account Executive MAKERBOT

Outstanding Contributor to: The Future of Biomedical Innovation



Gabor Fari, Microsoft's Director for Business Strategy, Health and Life Sciences, gave the keynote: "Transforming Research and Discovery in The Cloud".





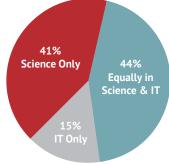
Our inaugural D2D conference brought together researchers from across the country to meet with IT professionals who are

Our inaugural D2D conference brought together researchers from across the country to meet with 11 professionals who are building smart tools for data generation, acquisition, analysis, sharing, and security throughout the drug pipeline from discovery to patients.

D2D: Data to Drugs and Diagnostics proved to us that there is a hunger for programs that stimulate growth in the cohort of scientists who need to understand more about working with bioinformaticists, software developers, cloud-based services, big data approaches, and the professionals who need to understand more about the kinds of support and creativity researchers need in a highly regulated, complex environment.

Keynote Speaker Robert J. Boland, Directing Senior Manager of External Innovation R&D at Janssen Pharmaceuticals, led off with "Fostering External Alliances to Drive IT Innovation in Pharma" (see cover). He underscored that decisions made through alliances and partnerships aid in driving pre-competitive innovation in IT and Pharma.

He shared Janssen R&D's new scientific data collaboration infrastructure, designed to support information sharing, and the TranSMART Knowledge Management Platform for externalizing internal technology.



Attendee Survey- On a Continuum from "All Science" to "All IT", how would you describe your work?

Keynote Dr. Bonnie Feldman (DrBonnie360) described insights gleaned from extensive interviews with more than 150 digital health companies. Focusing upon the growing needs of patients with autoimmune disorders, she noted that, with the explosion of personal data and tracking devices, we're experiencing progress toward the technological innovations foreseen decades ago by Judy Jetson.

# **Select Sponsors**



























# **Select Participants**

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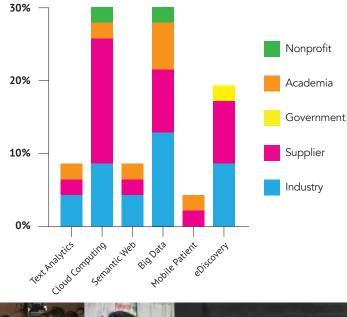
# **D2D Summer Sessions**



**BRCD2D** Summer Session - August 12, 2014, 6-8 pm - Rutgers

As a follow-up to the D2D Conference, and to keep the community growing we started a Meetp group that initiated during the summer.



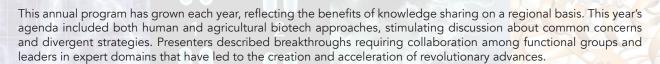


What is an area of technology you'll be exploring in the coming year?



# Triangle Biotech Research Symposium III: Innovating Through Partnerships and Collaborations

October 28, 2014 NC Biotechnology Center, Research Triangle Park



This year's Panels and Presentations were developed by our enthusiastic committee and partner organizations:

- Moving Traditional Drug Development into the 21st Century
- Plant Pathways Elucidation Project (P2EP): A Student-driven Initiative Fusing Plant Science with Human Health
- Emerging Paradigms in Collaboration IV
- Breakthrough Technologies Roundtable
- Licensing Perspectives for Agricultural Sciences



The Triangle Research
Symposium provided new
opportunities for scientific
cross-fertilization, increased
awareness of local support
for entrepreneurship
and technology transfer,
and generated new
collaborations among
universities and companies.

Frances S. Ligler
 Lampe Distinguished
 Professor BME
 UNC-Chapel Hill &
 NC State University

\* Photo Credit - Ricardo Barandiaran

# 2014 Committee Members:

Rodolphe Barrangou, Ph.D. NC State University

Alice Bonnen, Ph.D., JD Myers Bigel Sibley and Sajovec, P.A.

Rosalina Bray Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH

Allan Wenck, Ph.D., JD Bayer CropSciences

Jaymie DeWitt Biomedical Systems

Frances Ligler, D. Phil., D. Sc. UNC - Chapel Hill & NC State University Ashok Krishnamurthy, Ph.D. Renaissance Computing Institute

Joe Magno The North Carolina Center of Innovation Network

Cheryl Meliones
Duke Translational Research Institute
Duke University School of Medicine

Wanona Satcher Durham Urban Innovation Center City of Durham, NC

Michael Todd, Ph.D. NC Research Campus

Jacob Traverse, M.B.A. NC Biotechnology Center

# **Select Sponsors**







The North Carolina Center of Innovation Network



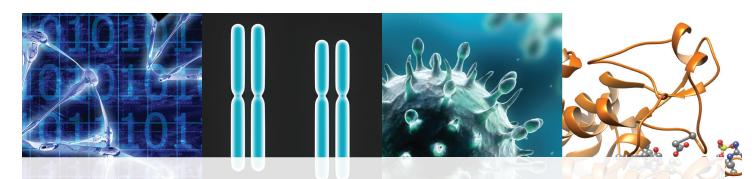












# **Speakers & Moderators:**

Wanona Satcher
Founder/Creative Director
Durham Urban Innovation Center

Cheryl Meliones

Duke Translational Research Institute

Rajendar Deora, Ph.D Associate Professor Wake Forest School of Medicine

Mark Parisi Executive Director Asinex Corporation

Michael Todd Executive Director North Carolina Research Campus

Mary Ann Lila, Ph.D.
Director of the Plants for Human
Health Institute
NCSU

Cory Brouwer, Ph.D.
Director of the Bioinformatics
Services Division
UNCC

Clyde Higgs VP for Business Development Castle & Cooke NC, Inc.

Richard Linchango, Ph.D. Student in Bioinformatics UNCC

Frances Ligler, DPhil, DSc, Lampe Distinguished Professor of Biomedical Engineering, UNC-Chapel Hill & NC State Univ. Bradford Walters, MD, Ph.D. Chief Medical Officer RTI International

Brian Smith Senior Partnership Developer, NCSU Office of Research, Innovation and Economic Development

Deborah Thompson, Ph.D. Director of Partnership Development NCSU College of Ag and Life Sciences

Rodolphe Barrangou, Ph.D. Associate Professor NC State University, CRISPR-Cas

Ashok Krishnamurthy, Ph.D. Deputy Director, RENCI Renaissance Computing Institute

Caterina Gallippi, Ph.D.
Associate Professor
Joint Department of Biomedical
Engineering, UNC Chapel Hill,
Affiliated Associate Professor,
Electrical and Computer Engineering,
NC State University

Andrew Murphy, Ph.D.
Director of Bioseparation Technology,
ProteoVec, Modular Protein
Production

Allan Wenck, Ph.D., JD, Head of Trait Validation US Bayer CropScience Kelly Sexton, Ph.D.
Director, Office of Tech Transfer
NC State University

Al Kriz, Ph.D.
Global Strategic Alliance Manager
Bayer CropScience

Andy Renz, Ph.D.
Vice President Business Development
Benson Hill Biosystems

Dan Tomso, Ph.D. Chief Science Officer Agbiome

Martha Dunn, Ph.D. Senior Licensing Manager Syngenta

Jacob Traverse
Enterprise and Technology
Development Director
Agricultural Biotechnology
NC Biotechnology Center



























#### 2014 Webinars

Virtual programs have allowed us to develop relationships with global thought leaders who have shared their expertise on a range of emerging themes. Almost all of these programs are archived at www.biopharmaresearchcouncil.org

Have an idea for a webinar? Get in touch and we'll explore your idea together.



Using Clinical Lab Data to Improve Trial Design January 16, 2014



Dimitris Agrafiotis VP & Chief Data Officer Covance



Collaboration in the Cloud February 20, 2014





Andrea Kirby
Director, Enterprise Integration
& Customer Collaboration
Merck



Wolfgang Gentzsch Co-Founder UberCloud



Tom Johnson Managing Director Exostar



Next Generation Pharma Discovery: Collaboratively Analyzing 3D Imaging Data in the Cloud May 15, 2014



Mohamed Ayad Senior Industry Specialist Microsoft Health and Life Sciences



Michael D. Cockman, Ph.D. Senior Scientist Manager Imaging Center Early Development Covance Inc.



David Weinstein, Ph.D. President & COO Numira



Zhiyong Xie, Ph.D. Associate Director Pfizer



Flexible BioManufacturing Now: Facility Design in the Dawn of Single Use

Free Webinar - July 24, 2014



Maik W. Jomitz Chief Operating Office G-CON Manufacturing, Inc.



George Wiker Vice President M+W U.S., Inc.



Maurice Phelan BioProcess Services Leader GE Healthcare Life Sciences



#### Overview



Jan Lötvall ISEV President Professor Krefting Research Centre University of Gothenburg, Sweden

#### **Applications**



Johan Skog Chief Scientific Officer Exosome Diagnostics

#### Commercialization



Sasha Vlassov Senior Staff Scientist Group Leader ThermoFisher Scientific

#### Panel: Regulatory and Funding Issues



Angel Ayuso Sacido, Ph.D. Director of the Thoracic and Brain Tumor Laboratory CIOCC-IMMA Fundacion Hospital de Madrid, Spain



Eva Rohde, MD
Head of the Transfusion
Medicine Department &
Director of the
GMP-Laboratory
Paracelsus Medical
University
Salzburg, Austria

#### Organized By



Winston Kuo DMSc COO IES Diagnostics Editor in Chief Journal of Circulating Biomarkers





Richard Purcell President & CEO intelliSante



Lilli Abdullahi Manufacturing Support Associate II Biogen Idec





Ashutosh Sabharwal, Ph.D. Professor of Electrical & Computer Engineering Rice University



Danielle Macario, Ph.D. Affiliated Board Member Schulman Associates

#### 2014 Webinars Continued





Camilia R. Martin, M.D., M.S. Assistant Professor of Pediatrics Harvard Medical School



Floyd E. Dewhirst Senior Member of Staff Department of Microbiology The Forsyth Institute



Sasha Vlassov Senior Staff Scientist Group Leader ThermoFisher Scientific



Howard Young, Ph.D. Deputy Chief NCI Laboratory of Experimental Immunology



Winston Kuo DMSc COO IES Diagnostics Editor in Chief Journal of Circulating Biomarkers



Global Collaboration to Address Ebola

Thursday, December 11, 2014, 11 am EST



Dan Didier Head of Public Health Thermo Fisher Scientific



Howard Young, Ph.D. Deputy Chief NCI Laboratory of Experimental Immunology

# What's coming in 2015?

As we continue to build resources for our community, we are developing several new approaches that will be announced throughout the year:

Our Young Investigators group has been mentioned on our website. Through this group we will recognize early career scientists, provide opportunities to participate in committees and make presentations, and developing mentoring relationships with senior thought leaders.

We're developing a Business Roundtable to address the changing landscape of the pharma/biotech industry, in addition to supporting the BRC in building sustainability.

We have not had a formal Membership/Sponsorship program, instead focusing upon the chicken-and-egg process of developing activities while attracting partners and participants. We are working on compelling benefits that can reward our supporters and extend our capabilities.

We continue to work at establishing and deepening our Partnerships and Memberships with allied organizations. By sharing resources, ideas, and outreach, we will continually expand the support we give to other groups and appreciate their support of our efforts.

Watch for our Virtual Annual Meeting on February 19, 11 am-noon EST. We'll share our plans, award our Outstanding Contributors, and enjoy a lively keynote!

# **Scientific Advisory Board**

Our Scientific Advisors play a key role in developing ideas for our activities, participating on committees, and reaching out to share our news with their communities. We appreciate all of their efforts and creativity!

In 2014 we welcomed Dr. Winston Kuo to the SAB. Editor in Chief for the Journal of Circulating Biomarkers, he has been instrumental in developing the Short Course in Extracellular Vesicles, and has introduced us to many key thought leaders. Among his many accomplishment is the founding of Harvard Medical School's Laboratory for Innovative Translational Technologies, which was an integral part of the Clinical and Translational Science Award program. You can find his full biosketch and profiles of each SAB member on our website.



Jaymie DeWitt Director Business Development Biomedical Systems



Deborah Dougherty Professor & Vice-Chair CEO Network for Innovation Expertise Development Management & Global Business Rutgers University



Dr. Anka G. Ehrhardt Director Clinical Flow Cytometry Bristol-Myers Squibb



Sam Kongsamut Owner & Principal Rudder Serendip LLC



Joan Krakowski Clinical Research Project Manager CHDI Foundation, Inc.



Winston Kuo DMSc COO IES Diagnostics Editor in Chief Journal of Circulating Biomarkers



Terry Stouch President Science for Solutions



Carole Wilmot Owner C Wilmot Consulting



Howard Young Deputy Chief NCI Laboratory of Experimental Immunology

#### **Our Staff**

Joanne Gere Executive Director Tom Fare Director, Strategic Alliances Kristin Ward Art Director

Ronnye Schreiber Board President Rich Brandwein Board Chair

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Website: www.biopharmaresearchcouncil.org



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www.linkedin.com/company/biopharma-research-council



www.meetup.com/d2d-data-todrugs-diagnostics-meetup

# Partners & Memberships

We work with a wide range of relevant organizations to build programs, share resources, and spread the word. To explore partnering with us, send a note to info@biopharmaresearchcouncil.org



#### Brilliant and Beautiful Foundation(BBF)

http://www.brilliantandbeautiful.org

The Brilliand and Beautifiul Foundation (BBF) supports the aspirations of women in scientific research and the scientific enterprise. We provide education, leadership, and mentorship opportunities for women pursuing careers in science. BBF supports the legacy of innovation, enterprise, leadership, and mentorship inspired by its founders Drs. Tiffani Bailey Lash and Tashni Dubroy



#### Center for Dermal Research (CDR)

http://www.centerfordermalresearch.org

The vision of the Center for Dermal Research is be the premier dermatopharmaceutics research center in NJ conducting studies on topical and transdermal compound delivery, skin biology and skin tissue engineering. The CDR will also provide quality educational opportunities for its members through workshops, seminar series, symposia and courses.



#### Coalition of Small Business Innovators (CSBI)

http://www.smallbusinessinnovators.org

The Coalition of Small Business Innovators is a national, non-partisan coalition of organizations dedicated to stimulating sustained, private investment in small companies focusing on the development of transformative, life-changing new technologies. With small businesses working to advance research, development, and manufacturing of technologies that have the potential to solve critical economic, environmental, and societal challenges around the world, we seek to educate lawmakers and the public about the value of stimulating investment in these companies.



http://law.fordham.edu/cle

Fordham Law, across from Lincoln Center in Manhattan, is a vibrant academic community dedicated equally to scholarship, the craft of lawyering, and public service. The school presents a diverse range of continuing legal education events, symposia, and public programs to further attorneys' professional development, engage the broader community in exploration of important legal topics, and provide valuable insights on national and international legal issues.



### HealthCare Institute of New Jersey (HINJ)

http://hinj.org

New Jersey is home to more biopharmaceutical companies than any other state in the country, or any other country in the world. The biopharmaceutical and medical technology industry is a major factor in creating a thriving economy in New Jersey, as well as making our state a leader in research and development. Founded in 1997, the HealthCare Institute of New Jersey (HINJ) is a trade association for the research-based biopharmaceutical and medical technology industry in New Jersey.



#### Innovation NJ

http://www.innovationnj.net

"Innovation NJ" is a diverse coalition of business, higher education and government established to strengthen and enhance the culture of innovation in New Jersey by:

- Promoting public policies that encourage innovation.
- Fostering greater dialogue among members of New Jersey's innovation community.
- Increasing collaboration between New Jersey's business and higher education communities.



#### Lehigh Nanotech Network (LNN)

http://www.lehigh.edu/lnn/

The Lehigh Nanotech Network (LNN) was founded by Lehigh in 2004. The LNN is an organization of nearly 200 business, education, and government members that facilitates the understanding and commercialization of nanotechnology. The LNN sponsors and conducts events to bring members together to learn about nanotechnology applications and research programs, funding opportunities, and educational initiatives. It enables regional companies to connect to the latest technologies and initiatives in the government sector, and to other members that are active in teaching, developing, applying, and commercializing nanotechnology. The LNN supports education and outreach to foster student interest and opportunities in nanotechnology. Membership is open to any company or organization that is interested in these areas.



# Mid-InfraRed Technologies for Health and the Environment (MIRTHE)

http://www.mirthe-erc.org/mirthecenter/

MIRTHE is a National Science Foundation Engineering Research Center headquartered at Princeton University, with partners City College New York, Johns Hopkins University, Rice, Texas A&M, and the University of Maryland Baltimore County. The center encompasses a world-class team of engineers, chemists, physicists, environmental and bio-engineers, and clinicians. MIRTHE's goal is to develop Mid-Infrared ( $\lambda$  – 3-30  $\mu$ m) optical trace gas sensing systems based on new technologies such as quantum cascade lasers or quartz enhanced photo-acoustic spectroscopy, with the ability to detect minute amounts of chemicals found in the environment or atmosphere, emitted from spills, combustion, or natural sources, or exhaled.



# North Carolina Association for Biomedical Research (NCABR)

http://www.ncabr.org

The mission of the North Carolina Association for Biomedical Research (NCABR) is to promote public understanding of and support for bioscience research. NCABR provides free training and materials to K–12 educators by bringing them into research facilities to learn directly from scientists through our Rx for Science Literacy free workshop series. We also offer online courses, curricula and other publications about research and present outreach programs for the general public, including K–12 students.



# New Jersey Association for Biomedical Research (NJABR) http://njabr.com

The New Jersey Association for Biomedical Research (NJABR) is the only organization in New Jersey dedicated solely to advocating for the availability of appropriate research models. We promote the continuing improvement of laboratory animal welfare and public understanding of the role and value of animal research.



# New Jersey Technology Council (NJTC)

http://www.njtc.org

The New Jersey Technology Council (NJTC) provides business support, networking opportunities, information, advocacy, and recognition of technology companies and their leaders. Founded in 1996, NJTC's member companies work together to support their own enterprises while advancing New Jersey's status as a leading technology center in the United States.



#### **UberCloud**

https://www.theubercloud.com

UberCloud is the online community and marketplace where engineers and scientists discover, try, and buy Computing Power as a Service, from Clouds and even from Supercomputing Centers around the world. Engineers and scientists can explore and discuss how to use this computing power to solve their demanding problems.



#### Founding Sponsor - PlanetConnect

PlanetConnect (PCI) is a Founding Sponsor of BioPharma Research Council (BRC) and has contributed significant funds and other resources to help BRC build grow as a premier association for scientists across the entire biomedical research community. As our producing partner, PlanetConnect also provides expert event management and exhibitor sales support.

#### **About PlanetConnect**

For more than 20 years, PlanetConnect has created and organized highly effective confidential meetings of all sizes for global pharmaceutical/biotech companies and associations.

Diverse symposia have provided well run, cost efficient platforms for company-wide R&D, IT, Analytical, and Manufacturing teams. In sessions ranging from 100 to 2,500 participants, PCI's client companies have been able to effectively conduct focused meetings, executive conclaves, and departmental "Deep Dives" with bench scientists, research & development staff and executives.

Whether conducted on your company campus or off-site, the PCI approach facilitates opportunities for an organization's global scientific staff to gather to communicate research results in a secure, comfortable setting that encourages networking and information sharing.

### **Unique Business Model**

Strong relationships with the research supplier community means that these events can be developed at a very low cost to your company. While PCI manages all logistics for these sessions, its unique model minimizes operational costs. PlanetConnect's depth of interaction with supplier contributors, so important to biomedical research, makes this possible.

As a leading Research Conference Organizer (RCO), PCI works closely with Strategic Sourcing/Procurement groups as well as internal meeting planners to ensure that the events match company goals and are of value across all R&D groups. Key services include committee management, audio/visual production, registration, and creative engagement for attendees.

