

Welcome to Merck!

Shawn Rumrill

Patricia Coutinho de Souza

09-APR-2026



Introduction



Patricia Coutinho de Souza
Associate Principal Scientist,
Molecular Pathology,
Translational Medicine



Shawn Rumrill
Sr. Scientist, Sterile Product
Development



Reminder:
Please no photos on site. We will
take a group photo at the end.

Reminder:
Restrooms are outside the
auditorium to your right, in the
Hall of Molecules

Agenda

Time	Activity	Location
10:00AM - 10:30AM	Introduction to Merck	Max Tischler (RY80K)
10:30AM - 11:15AM	Lab Tour 1	Group 1 - 3D Print Group 2 - TMB
11:15AM - 12:00PM	Lab Tour 2	Group 1 - TMB Group 2 - 3D Print
12:00PM - 1:00PM	Cafeteria Lunch	Bond Street Café (RY86)
1:00PM - 2:00PM	Merck Employee Panel	Max Tischler (RY80K)
2:00PM - 2:45PM	Networking	Max Tischler (RY80K)
2:45PM - 3:00PM	Closing Remarks and Photo	Max Tischler (RY80K)
3:00PM	Departure	Guest Center (RY50G)

Rahway Site Overview

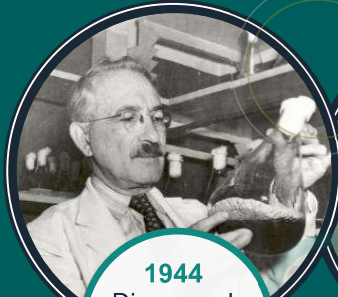
For more than a century, the Rahway campus has been home to many medical breakthroughs. Our research-focused campus includes core chemistry and principal development capabilities.

Rahway has been recognized by the American Chemical Society as a National Historical Chemical Landmark, recognized for multiple breakthroughs, including groundbreaking research on the vitamin B complex, the discovery of Ivermectin (Mectizan), and pioneering penicillin production.



- ✓ **Currently Global Headquarters**
- ✓ Conceived by George W. Merck to reflect a college campus feeling
- ✓ A multi-function facility with a strong research legacy
- ✓ Situated on more than 210 acres
- ✓ Located in both the cities of Rahway and Linden
- ✓ **There are 100 buildings on site**
- ✓ **Approx. 9,000 Full Time Employees**

A Legacy of Innovation



1944
Discovered Streptomycin, made rights public



1946
First synthesis of cortisone



1961
Introduced Thibenzole, first drug known to kill trichinella in animals



1960s
First long-term measles vaccine and first mumps and rubella vaccines



1974
First to isolate broad-spectrum antibiotics



1977
First pneumonia vaccine



1987
Discovered and donated MECTIZAN to eliminate river blindness



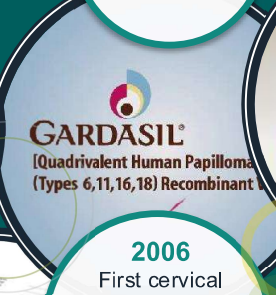
1995
First chickenpox vaccine



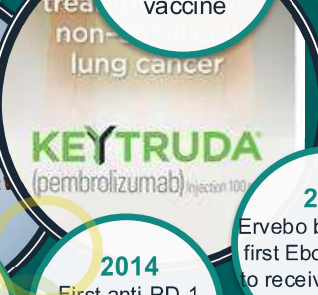
1996
CRIXIVAN developed for HIV treatment



1998
First once-daily leukotriene blocker for asthma



2006
First cervical cancer vaccine
First DPP-4 for Type-2 Diabetes



2014
First anti-PD-1 therapy approved in the United States



2019
Ervebo became the first Ebola vaccine to receive approval

Divisions



Merck Animal Health



Merck Research Laboratories



Merck Manufacturing Division



Human Health

Merck Research Labs (MRL)

Development Sciences and Clinical Supply (DSCS)

Analytical Research & Development (AR&D)

Biologics Process Research & Development (B-PR&D)

Global Clinical Supply (GCS)

Pharmaceutical Sciences and Device Development

Small Molecule Process Research & Development (SM-PR&D)

Vaccine Process Research & Development (V-PR&D)

Discovery, Preclinical and Translational Medicine (DPTM)

Discovery Biologics

Non-Clinical Drug Safety

Discovery Chemistry

Quantitative Biosciences

Data, AI, and Genome Sciences

Immunology Discovery

Infectious Diseases and Vaccines Discovery

Pharmacokinetics, Dynamics, Metabolism and Bioanalytics (PDMB)

Translational Medicine / Oncology Discovery

Neuroscience Discovery

Cardiometabolic Disease (CMD) Discovery Biology

Scientific Focus Areas

- **Oncology**
 - Bladder cancer
 - Blood cancer
 - Breast cancer
 - Gastrointestinal cancers
 - Gynecological cancers
 - Head and neck cancer
 - Lung cancer
 - Melanoma
 - Prostate cancer
 - Renal cell carcinoma
- **Vaccines**
 - Merck manufactures vaccines covering 10 serious diseases for which the CDC recommends routine vaccination, including measles, mumps, rubella, varicella, HPV, and various pneumococcal diseases.
- **Infectious Disease**
 - HIV
 - Pneumococcal disease
 - Antibiotics
 - Ebola Zaire
- **Cardio-metabolic disorders**
 - Hypercholesterolemia
- **Immunology**
 - Inflammatory bowel disease (IBD)
 - Scleroderma-associated interstitial lung disease (SSc-ILD)
 - Hidradenitis suppurativa (HS)
 - Radiographic axial spondyloarthritis (r-axSpA)
 - Rheumatoid arthritis (RA)
- **Neuroscience**
 - Alzheimer's disease
 - Pain Sleep/wake disorders
 - Parkinson's disease
 - Neuromuscular disease
- **Ophthalmology**
 - Diabetic macular edema
 - Neovascular age-related macular degeneration

Sustainability at Rahway

- **Oscar: Using Artificial Intelligence to Sort Waste**
 - Show the Oscar camera your waste item
 - Oscar can detect and guide you on disposing waste
 - 11 featured locations at Rahway!



- **Rocket Composter: Closing the Loop at Rahway**
 - On-site composter breaks down food waste
 - Use compost on-site for landscaping and flower beds

- **Electric Vehicles: Powering Our Future**
 - Electric mowers reduce emissions from lawn-care equipment
 - 47 electric vehicle charging stations in garages and surface lot for employees
- **Living Wall: Bringing the Great Outdoors, Inside**
 - Connection to nature, reduces stress, improves air quality

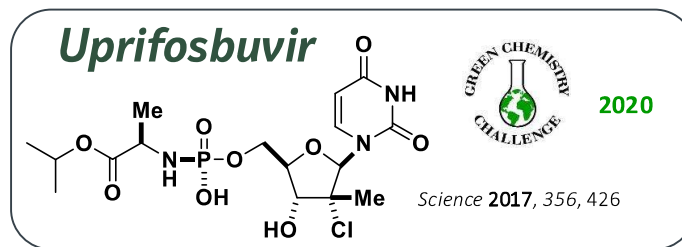
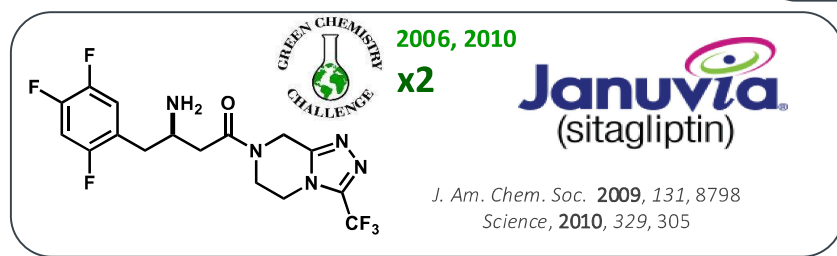
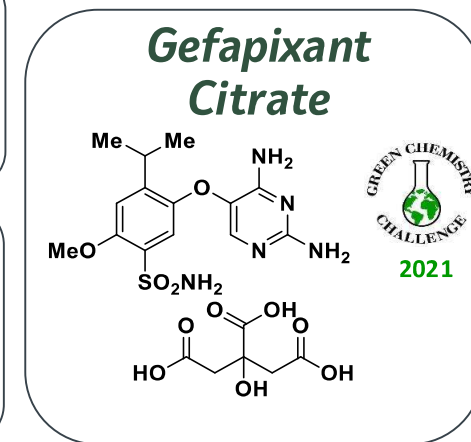
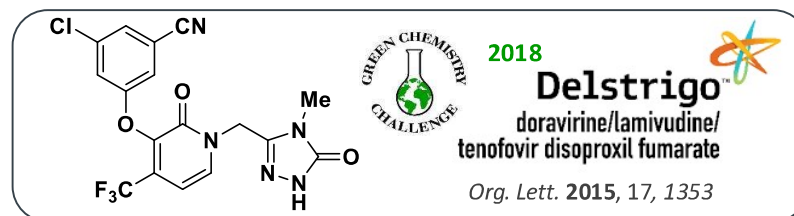
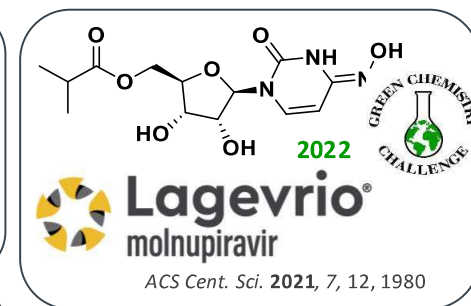
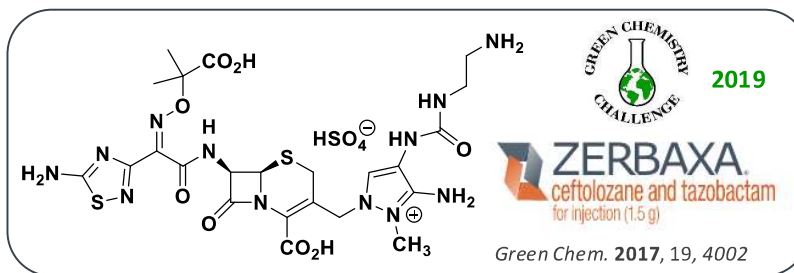
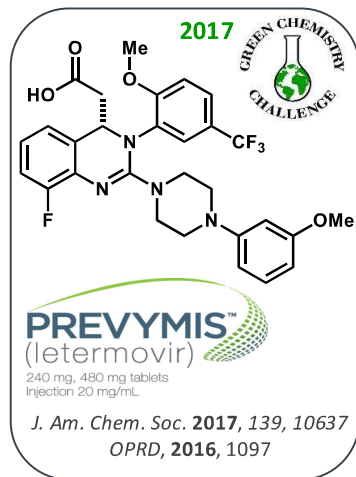
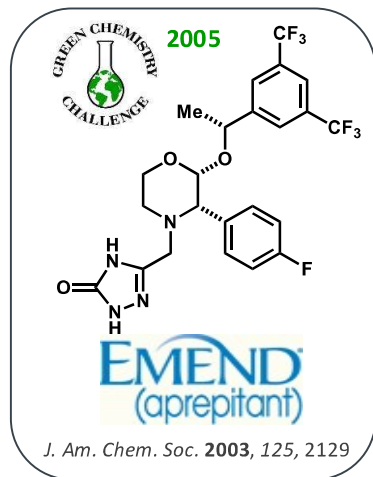




GREEN & SUSTAINABLE SCIENCE AT MERCK



The Green Chemistry Challenge Awards promote the environmental and economic benefits of developing and using novel green chemistry. These prestigious annual awards recognize chemical technologies that incorporate the principles of green chemistry into chemical design, manufacture, and use.



Interested to learn more about Merck Chemistry?

Tune in to the Pharm to Table Podcast



- A podcast hosted by L.-C. Campeau and Dani Schultz that dives into the stories about the people behind the science that happens at #MerckChemistry.
- Each episode features papers from the #MerckChemistry team with interviews with authors about the work.
- A great way to stay up to speed on Merck science and get insights into what it is like to work at Merck.



*Follow us on X at @PharmToTablePod, @DrLCSquare, @danithechemist
Subscribe on Apple Podcast, GooglePlay, Spotify or your favorite podcast platform*

Employee Business Resource Groups (EBRGs)

- Network and meet people with similar backgrounds by joining an EBRG
- Participate in mentoring programs, career development, conferences, STEM outreach, heritage month events, and community engagement
- Search EBRGs on SYNC to find more information

Asia Pacific Association (APA)

League of Employees of African Descent (LEAD)

Native American & Global Indigenous People (NAGIP)

Merck capABILITY Network (MCN)

Merck Interfaith Organization (MIO)

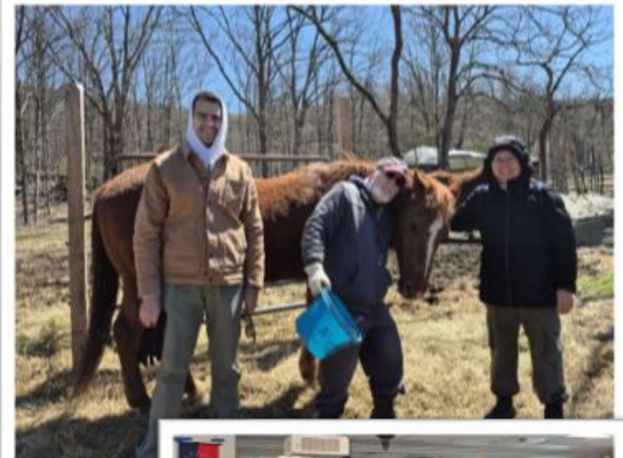
Merck Hispanos Organization (MHO)

Next Gen Network (NGN)

Merck Rainbow Alliance (MRA)

Merck Women's Network (MWN)

Merck Veterans Network (MVN)



NJ LINK



Thank you!

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Career Panelists



Qingzhe Ni, PhD
Analytical Enabling
Capability



John Gleeson, PhD
Biopharmaceutics



Nicole Bertoletti, PhD
Protein and Structural
Chemistry



Matt A. Cruz, PhD
Biologics
Development



Lisa LaManna, PhD
Biologics Analytical
R&D

Elevator Pitch (1 min each!)

Please introduce yourself and share:

1. Your position/department
2. Your Education/Degree
3. Briefly about your job role/responsibilities
4. How long you've been at Merck



Qingzhe Ni, PhD

- Analytical Enabling Capability



John Gleeson, PhD

- Biopharmaceutics



Nicole Bertoletti, PhD

- Protein and Structural Chemistry



Matt A. Cruz, PhD

- Biologics Development



Lisa LaManna, PhD

- Biologics Analytical R&D

Question 1:

What was the biggest challenge in transitioning from academic research to a corporate R&D environment?



Qingzhe Ni, PhD

- Analytical Enabling Capability



John Gleeson, PhD

- Biopharmaceutics



Nicole Bertoletti, PhD

- Protein and Structural Chemistry



Matt A. Cruz, PhD

- Biologics Development



Lisa LaManna, PhD

- Biologics Analytical R&D

Question 2:

What does a typical day look like in your current role?



Qingzhe Ni, PhD

- Analytical Enabling Capability



John Gleeson, PhD

- Biopharmaceutics



Nicole Bertoletti, PhD

- Protein and Structural Chemistry



Matt A. Cruz, PhD

- Biologics Development



Lisa LaManna, PhD

- Biologics Analytical R&D

Question 3:

From your perspective, what makes a strong resume or candidate for early-career R&D roles?



Qingzhe Ni, PhD

- Analytical Enabling Capability



John Gleeson, PhD

- Biopharmaceutics



Nicole Bertoletti, PhD

- Protein and Structural Chemistry



Matt A. Cruz, PhD

- Biologics Development



Lisa LaManna, PhD

- Biologics Analytical R&D

Question 4:

If you could give one piece of advice to your younger self during your PhD, what would it be?



Qingzhe Ni, PhD

- Analytical Enabling Capability



John Gleeson, PhD

- Biopharmaceutics



Nicole Bertoletti, PhD

- Protein and Structural Chemistry



Matt A. Cruz, PhD

- Biologics Development



Lisa LaManna, PhD

- Biologics Analytical R&D

Thank you, Panelists!

Networking Session



TIME FOR A GROUP PHOTO



Contact information



Translational Molecular Biomarkers (Lab Tour)

- **Flow Cytometry**
 - Sai Bryak sai.bryak@merck.com
 - Tanzilya Khayrullina tanzilya.khayrullina@merck.com
- **Genomics**
 - Sunil Kuppasani sunil.kuppasani@merck.com
 - Ling Pang ling.pang@merck.com
- **Immunoassay**
 - Yang Peng yang.peng3@merck.com
 - Tom McAvoy thomas_mcavoy@merck.com
- **MassSpec**
 - Lizhuo Ai lizhuo.ai@merck.com
 - Kevin Gillespie kevin.gillespie1@merck.com
- **Molecular Pathology**
 - Tapan Shah tapan.shah@merck.com
 - Patricia Coutinho de Souza coutipat@merck.com

3D Technologies (Lab Tour)

- **3D Technologies**
 - Tony Panariello (anthony_panariello@merck.com)
 - Luis Medina (luis.medina1@merck.com)
 - Marc Durante (marc.durante@merck.com)
 - Miguel Rivera (miguel.rivera23@merck.com)

Career Panel and Networking

- **Hosts**

- Shawn Rumrill - Biologics Development (Shawn.Rumrill@Merck.com)
- Patricia Coutinho de Souza - Molecular Pathology (patricia.coutinho.de.souza@merck.com)

- **Career Panel**

- John Gleeson - Biopharmaceutics (john.gleeson1@merck.com)
- Lisa LaManna - Analytical R&D (l.lamanna@merck.com)
- Nicole Bertoletti - Protein and Structural Chemistry ([Nicole Bertoletti, PhD | LinkedIn](#))
- Matthew Cruz - Biologics Development and Modeling ([Matthew Cruz, PhD | LinkedIn](#))
- QingZhe Ni - Analytical NMR (qingzhe.ni@merck.com)

- **Networking**

- Haihong Zhou - Biology Discovery (haihong_zhou@merck.com)
- Rita Prajapati - Quality Assurance (rita.prajapati@merck.com)
- Kamalam Suppiah - Legal Support/IP (kamalam.suppiah@merck.com)
- Jonathan Romero - Bio Process (jonathan.romero@merck.com)
- Devin Swiner - Small Molecule Development (devin.swiner@merck.com)
- Phil Hastings - Engineering (philip.hastings@merck.com)
- Ana Coutinho - Biopharmaceutics (ana.coutinho@merck.com)
- Peter Hadley - Project Management (peter.hadley@merck.com)
- Theresa Buckley - Analytical R&D (theresa.buckley@merck.com)

 **MERCK** Yasuhiro Tsume - Biologics Development (yasuhiro.tsume@merck.com)