

MERCK OUTREACH PROGRAMS RUTGERS CAMPUS VISIT

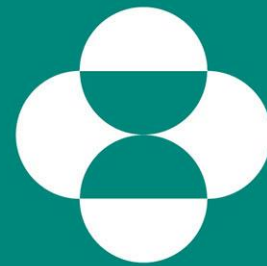


October 8, 2025

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MERCK

INVENTING FOR LIFE

Pharmacokinetics, Dynamics, Metabolism, Bioanalytics (PDMB)

One Purpose.

We use the power of leading-edge science to save and improve lives around the world.



Who are we?

For over 130 years, Merck has been inventing for life, bringing forward medicines and vaccines for many of the world's most challenging diseases in pursuit of our mission to save and improve lives.

Today, we continue to be at the forefront of research to prevent and treat diseases that threaten people and animals.



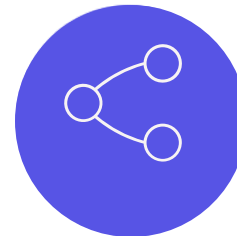
Our Operations:

Headquartered in Rahway, New Jersey, U.S., we operate in more than 140 countries.



Our Global Employees:

68,000



Our Research Focus:

\$12.2B research and development investment



Our Giving:

\$3B total philanthropy



Our Areas of Focus

We focus on scientific innovation to deliver medicines and vaccines that may help millions of people around the world.

-  Oncology
-  Vaccines
-  Infectious diseases such as Ebola HIV
-  Cardio-metabolic disorders



Our Commitment to Diversity & Inclusion

We need an employee population that reflects the vast diversity of our patients all over the world. True innovation is often the fruit of ideas cultivated by employees across a range of backgrounds, so Merck is committed to building a diverse and inclusive global workforce that is empowered to thrive, professionally and personally.



Where we are today?

43%

Merck's Board of Directors are women

36%

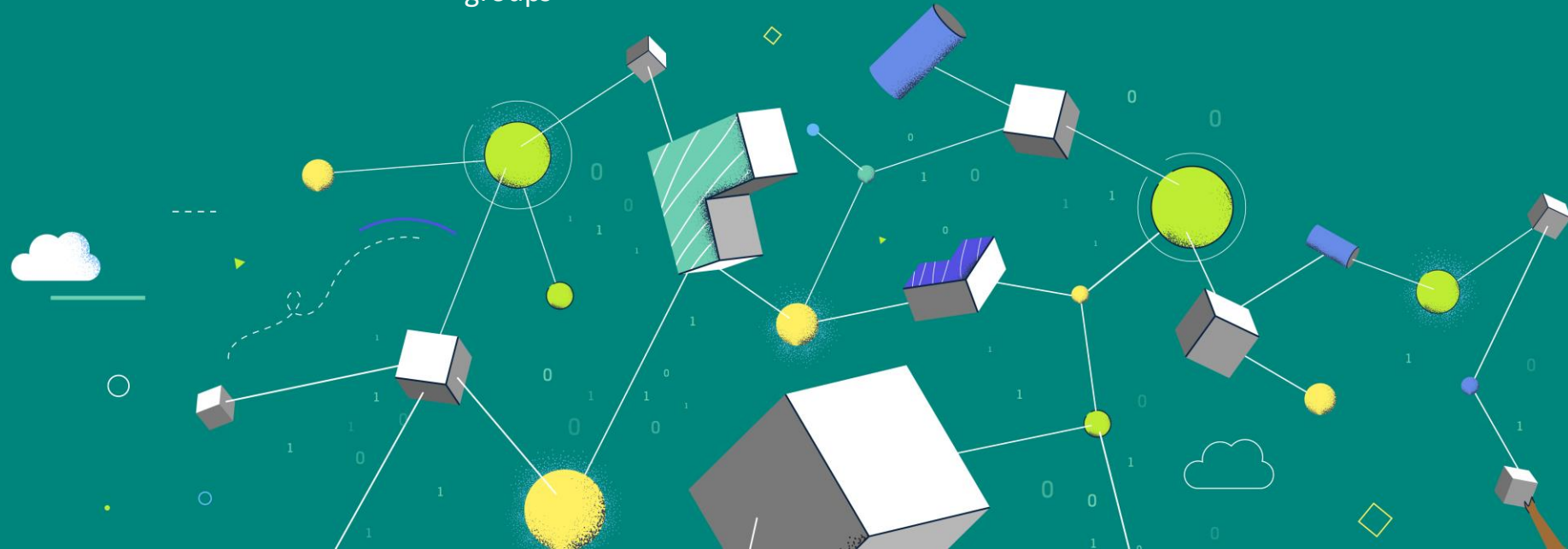
Of Senior Managers are women

21%

Of Merck's Board are members of under-represented racial and ethnic groups

25%

Of Senior Managers are members of under-represented racial and ethnic groups



How Are We Organized?

**Merck Research
Laboratories (MRL)**

**Merck Manufacturing
Division (MMD)**

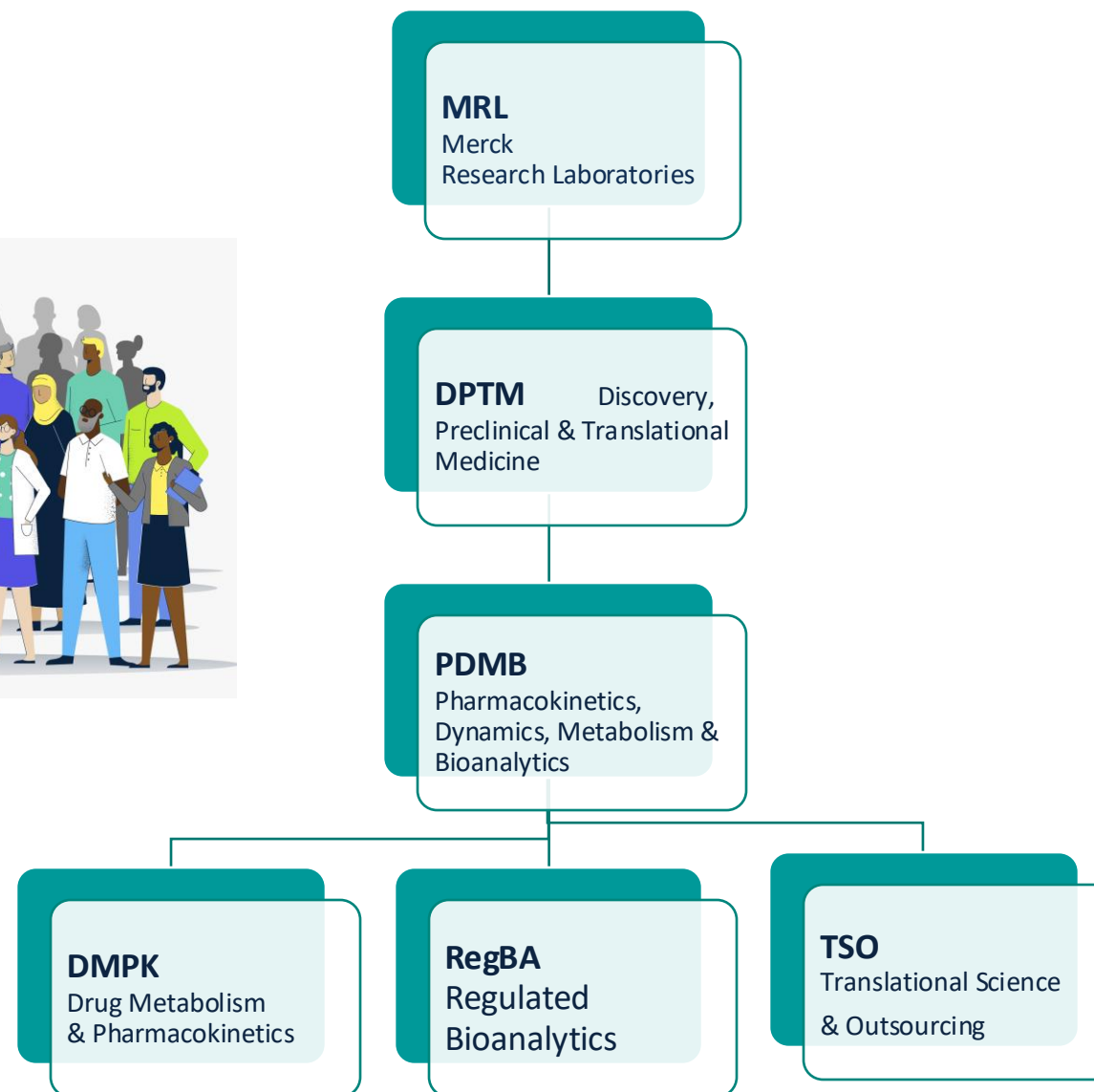
**Merck Human Health
(HH)**

**Merck Animal Health
(MAH)**

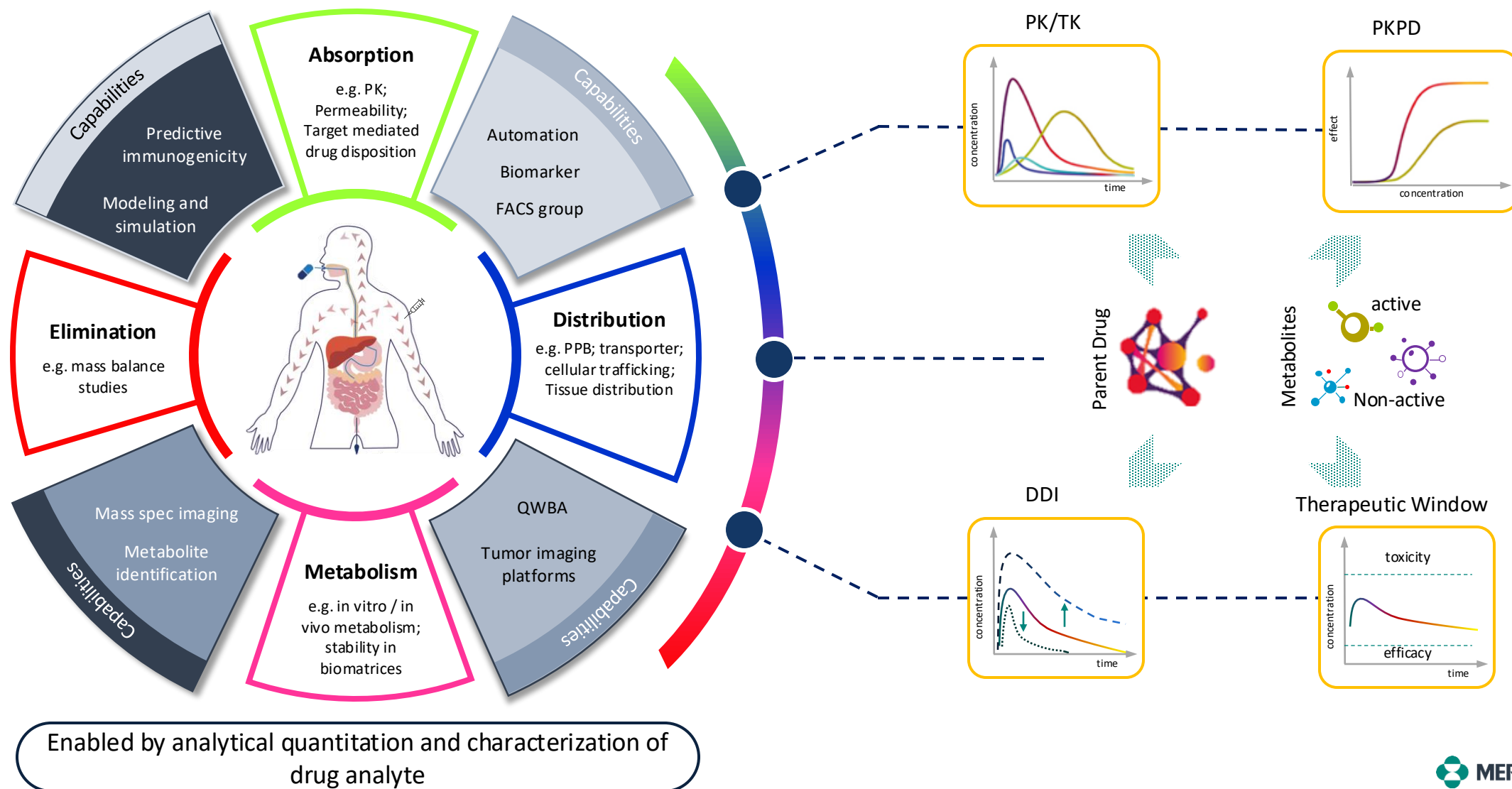
**Compliance | Global Services | Human Resources | Office of General Counsel
Security | Strategy Office | Policy, Communication & Population Health**

Pharmacokinetics, Dynamics, Metabolism & Bioanalytics

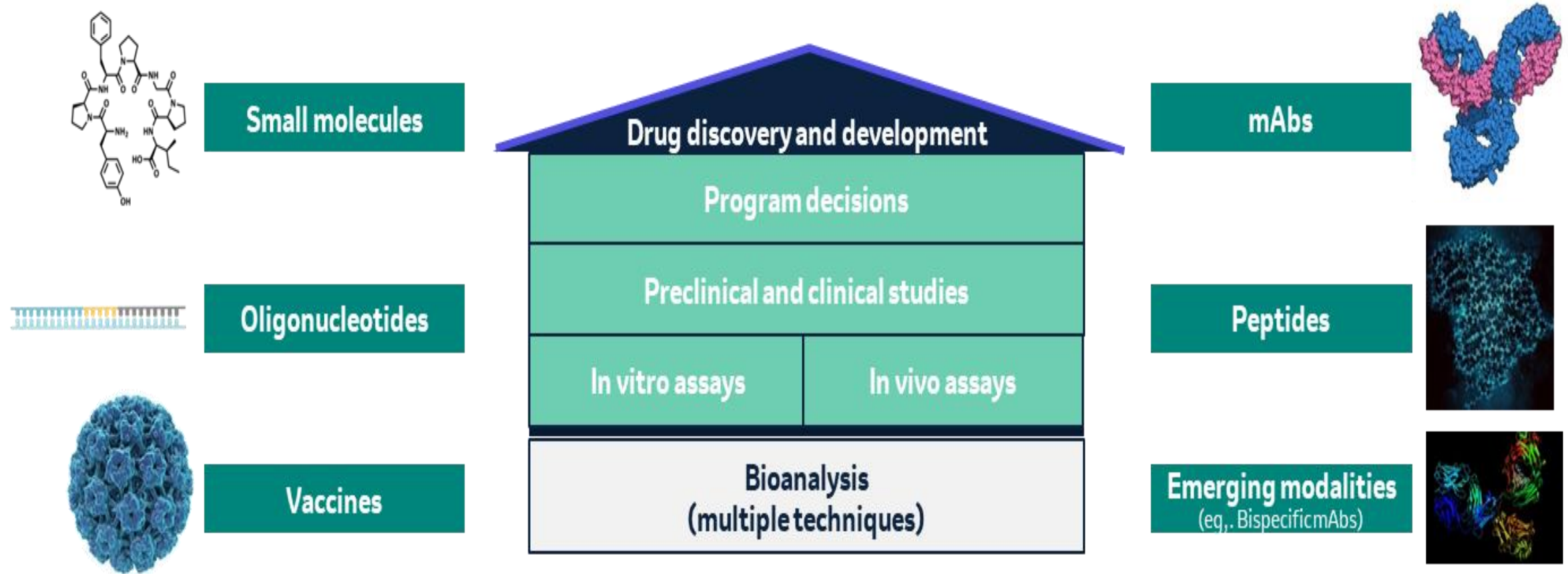
PDMB- Who We Are



DMPK Expertise and Capabilities



Regulated Bioanalytics (BA)

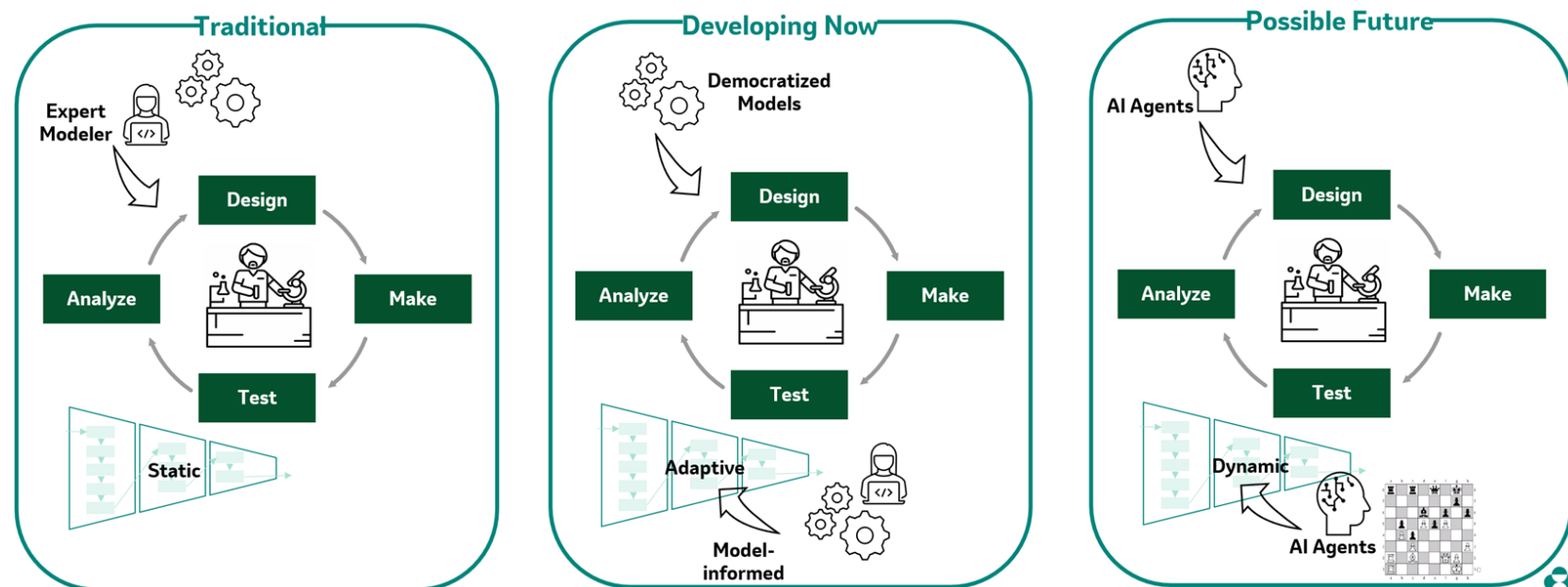


Data Science

Vision: Artificial Intelligence (AI)-Augmented Therapeutic Research and Development

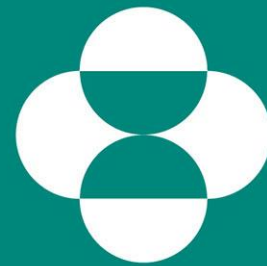
Strategy:

Generic, adaptive predictivity -> augment decision efficiency and accuracy -> accelerate Design, Make, Test, Analyze cycle



WHERE DO YOU FIT?

HOW TO GET THERE?



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We are looking for



Biologist (Biochem., Cell, Mol. etc.)



Chemist (Med., Org., Anal. etc.)



Mathematician/Statistician



Engineer (Elec. Chem. Biomed.)

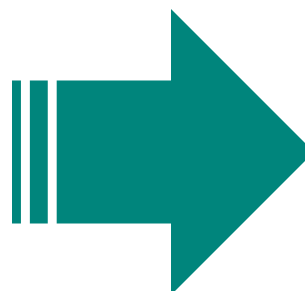


Pharmaceutical Scientist

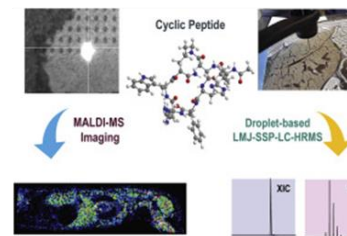


Computer Scientist

and more..

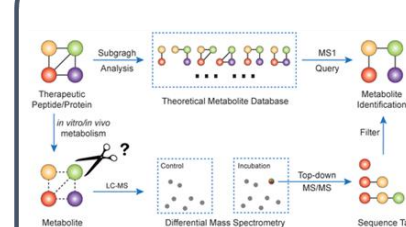


Imaging and Biodistribution



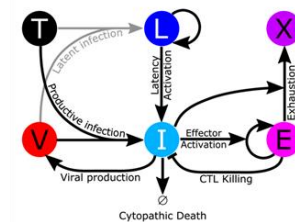
Chen, B. et al. 2020 Anal Chim Acta.

Biotransformation



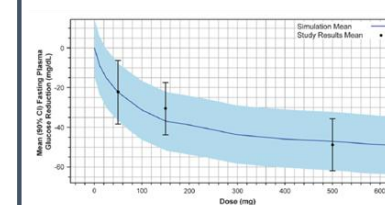
Yu, X. et al. 2020 Anal Chem.

Mathematical Modeling



Conway, et al. 2015. PNAS.
Cao, et al. 2018. PLoS Pathog

Smart Trial and Dose Prediction



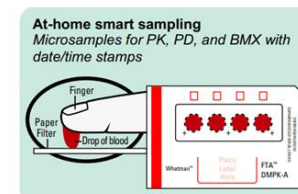
Krug, AW. et al. , 2017, Clin Transl. Sci.

Drug Optimization



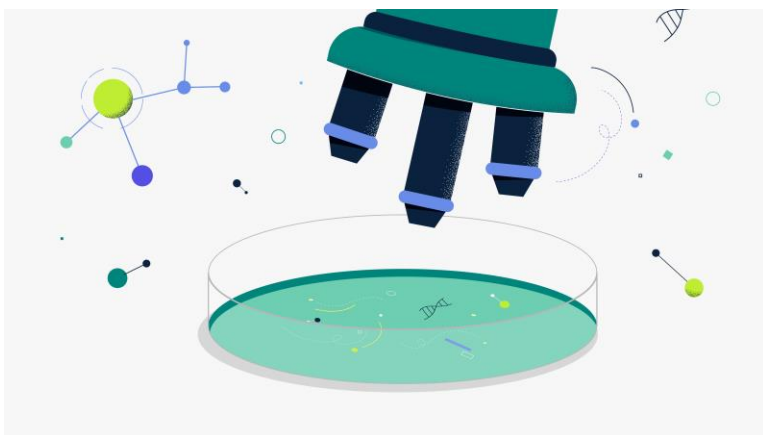
Miller RR. et al. J Med Chem. 2020

Bioanalysis and Smart Trial



Dockendorf, MF. et al. , 2019, Clin Pharmacol Ther

Merck welcomes interns, co-ops, and postdoctoral fellows each year



Internships and Co-ops

- Students (undergrad and grad) can apply for **3-month internships or co-ops of ~6 months**.
- Interns and co-ops work with Merck mentors to **gain skills** and contribute to **scientific questions with direct impact on our pipeline**.
- 2025: opportunities to be posted September 16, will close in November

Postdoctoral Fellows Program

- The Postdoc Program welcomes **30-40 new postdocs across Merck each year** for appointments of up to three years. The program provides an **academic focus in an industry setting**.
- Postdocs engage in **original non-proprietary research projects** in Merck Labs, with a primary goal of high-profile publications and presentations.

Careers at Merck

Scientific Ladder

Managerial Ladder

R1	Associate Scientist	BS with 0-3 years industry experience	
R2	Scientist	MS entry level BS with >3 years industry experience	
R3	Senior Scientist	PhD entry level MS with >3 years industry experience BS with >6 years industry experience	
R4	Associate Principal Scientist	PhD with >4 years experience MS with >8 years industry experience; BS with >12 years industry experience	Associate Director
R5	Principal Scientist	PhD with >8 years experience MS with >10 years industry experience; BS with >12 years industry experience	Director
R6	Senior Principal Scientist	PhD with >8 years experience MS with >10 years industry experience; BS with >12 years industry experience	Senior Director
R7	Distinguished Scientist		Executive Director

My personal advice

A job worth doing is a job worth doing well

Invest time in your development:

- volunteer in the lab
 - volunteer to run data analysis for people in the lab
 - Volunteer to write a chapter in an article (Introduction, Discussion)
 - LinkedIn/Coursera
- DO THE WORK so you can defend your resume during an interview

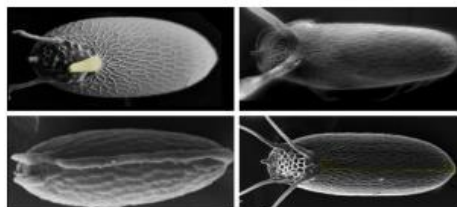
Career Spotlight- Nicole

2006-2008



Strong background in science:
Biology/Chemistry/Math
Discovered passion for learning

2011-2019



Masters

Yakoby Fly Lab

- **Scientific Rigor**
- **Presenting Science**

2019-2021



PhD in
Computational and
Integrative Biology
(CCIB)

- **Quantitative Molecular Approaches**
- **Teaching/Mentoring**

First Full-time position!

WuXi Advanced Therapies
(Minaris Advanced Therapies)

Found love for regulated work

Pharmaceutical Industry

2021-present

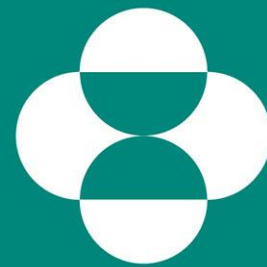


Hired by Merck PDMB

Broaden expertise in:

- **Drug Development Lifecycle**
- **Applying regulated studies to modernized platforms**
- **Data-driven decision making**
- **Team Leadership**

Q&A



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