



iJobs Virtual Site Visit: Teva Pharmaceuticals with Rutgers University

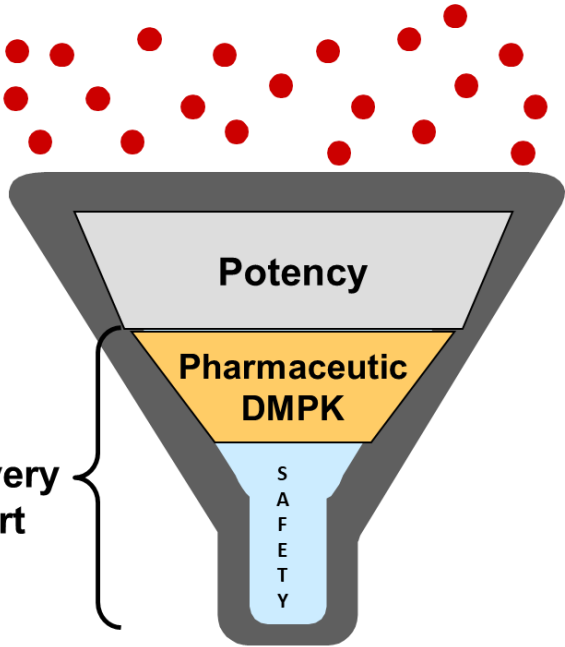
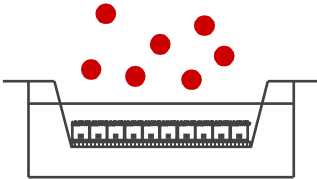
Mehran Yazdanian, PhD
VP R&D Operations
West Chester Site Head

May 16, 2024

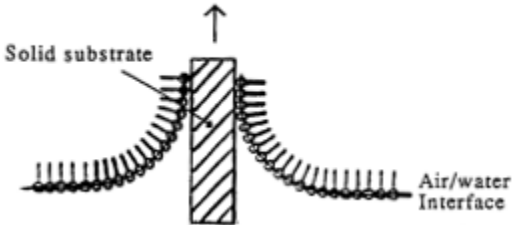
Mehran Yazdanian



BS Biochemistry
MS, PhD, Pharmaceuticals



Development Compound





Starting out in 1901 in Jerusalem

A story of entrepreneurship

Teva's History

1901-1940

A new pharmaceutical industry is founded

1901: Established in Jerusalem by Chaim Salomon, Moshe Levin and Yitschak Elstein

1980-1990

Global expansion

1984: Hatch-Waxman Act paves way for U.S. generic entry

1960-1980

Consolidation of the local pharmaceutical industry

1976: Eli Hurvitz forms Teva Pharmaceutical Industries Ltd.

1990-present

A global leader in generics/ And innovative medicines

1996: COPAXONE® in the US
2017-2018: AJOVY® (R) and AUSTEDO® (R)
2023 AUSTEDO® XR

We are all in for better health

Developing Medicines & Devices Across the Globe



Teva – Snapshot



A strong portfolio of innovative, generic, biosimilar and OTC medicines



50 Manufacturing sites



25 R&D sites



2022 Revenues in billions: \$14.9



60 markets

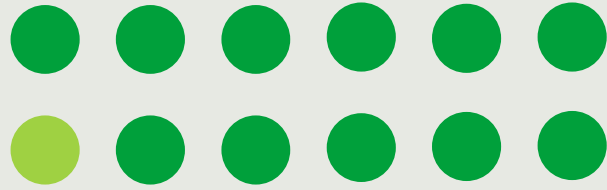


New Pivot to Growth Strategy announced in May 2023



~37,000 employees

World Leader in Generic Medicines



One in 12 Rx
in the US



1500+
Molecules



One in 5 Rx
in the UK



1,153
Approvals
in 2022

TOP 3

Position in 24
Markets in Europe

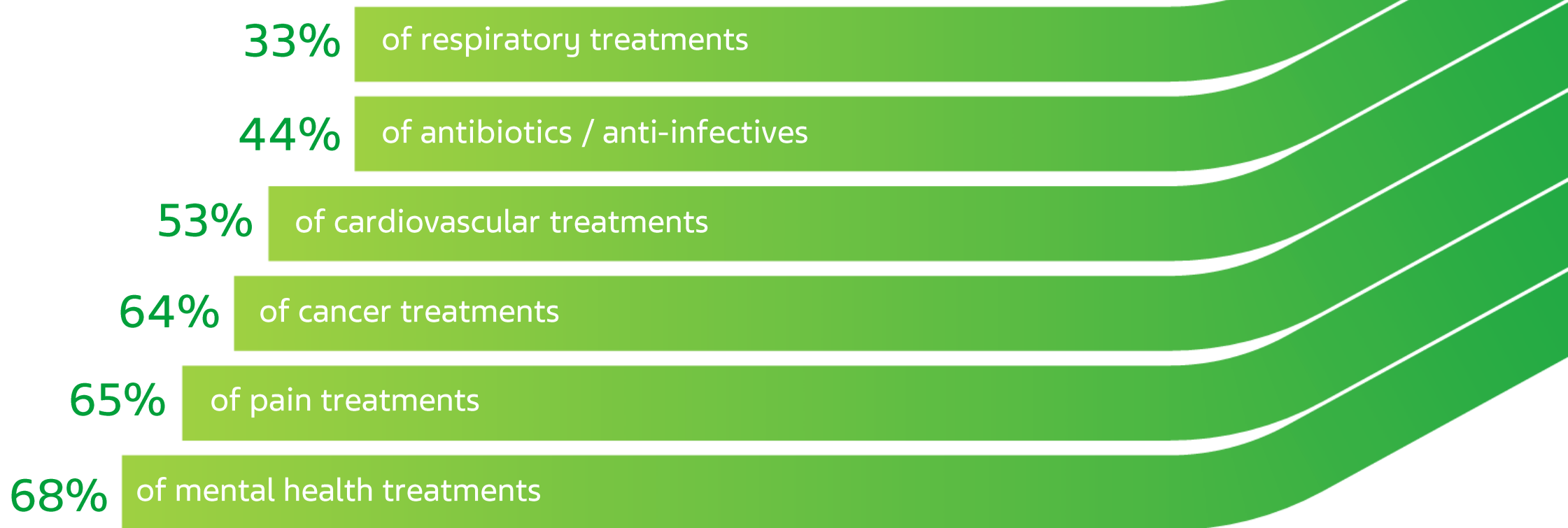


#1

largest Rx Generics company
in North America

Impact of Teva's Generic Products

Of the World Health Organization's (WHO) essential medicines, we manufacture:



Developing Small Molecules to Biologicals

Small Molecule

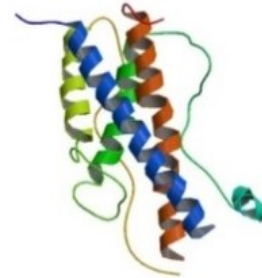
Biologics



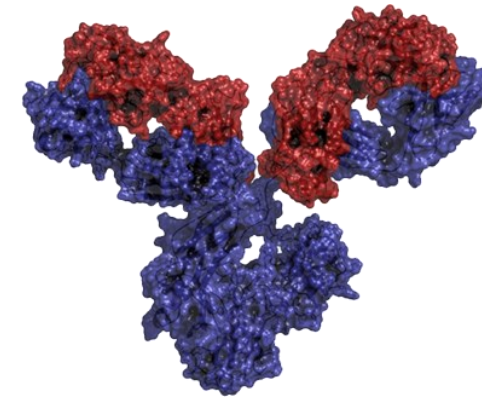
Acetylsalicylic Acid
~ 180 daltons



Insulin
~ 5,700 daltons



Growth Hormone
191 amino acids
~ 22,000 daltons



Monoclonal Antibody
~ 1,300 amino acids
~ 150,000 daltons

Increasing Complexity

Our Leading Innovative Medicines

CNS

COPAXONE[®]
(glatiramer acetate injection)

Austedo[™]
(deutetrabenazine)
6 mg, 9 mg, and 12 mg tablets

AJOVY[™]
(fremanezumab-vfrm)
injection 225 mg/1.5 mL

Respiratory

ProAir RespiClick[®]
(albuterol sulfate) Inhalation Powder

QVAR[®] **RediHaler**[™]
(beclomethasone dipropionate HFA)
Breath-Actuated Inhalation Aerosol 40 mcg • 80 mcg

CINQAIR[™]
(reslizumab) injection

DuoResp[®]
Spiromax[®]
budesonide/formoterol

Oncology

BENDEKA[™]
(bendamustine HCl)
injection

GRANIX[®]
(TBO-FILGRASTIM)
Injection

LONQUEX[®]
lipegfilgrastim

Trisenox[®] | 
(arsenic trioxide)
injection

We are all in for better health

“All in” means all of us but also all our energy, all our ideas, all our resources, all our innovation power... **Giving it all.**

This purpose **acts as a rallying cry.** It talks about a collective journey and brings together all employees under one strong commitment.

The simplicity of this sentence is a strength. It helps appropriation and ownership because it allows **for personal interpretation.**

LET'S MEET OUR PANELISTS

David Cragin

Senior Director,
Product Science
Environment, Health,
Safety & Sustainability



Xin Yuan

Senior Director US
Data Science &
Analytics



Damien O Halloran

Assoc Dir,
CMC Project
Management



Talia M. Planas
Fontáñez

Occupational
Toxicologist



Brian Hamilton

Senior Director,
Tech Support Business
partner to EMSO



Panel discussion



Round 1:
Career Paths



Round 2:
Current Roles



Round 3:
Advise

David Cragin – Career Overview

Risk assessment is the main theme

Training

- PhD, Pharmacology & Toxicology, U. of California, Davis; BS, Zoology, U. of Rhode Island
- Board-certified American Board of Toxicology

Career

- Exxon Mobil Biomedical Sciences
- ICF Kaiser (consulting)
- Arkema (French-owned chemical company)
- Merck & Co., In EHS & Quality
- Teva Pharmaceutical, Product Science; Environment, Health, Safety & Sustainability

Academic (Adjunct)

University of the Sciences, Philadelphia (now St. Josephs), Taught “Risk assessment, Critical thinking and Health” for the “Health Policy” program.

Peking University, teach risk assessment related to drug quality for the “International Program in Engineering Management”

Beijing Normal University, teach “Environmental Risk Assessment” for the “School of Environmental Sciences”

My Journey from Credit Risk Industry to Pharma

Help businesses make data-driven decisions with AI/ML



PhD in Economics



14 years, held various roles from entry level data scientist to Global Leader, Analytics Innovation

- Credit risk
- Sales and marketing
- Supply chain
- Capital market



1 year
VP Global Business New Accounts Risk

- Small business card underwriting model
- Corporate card underwriting model

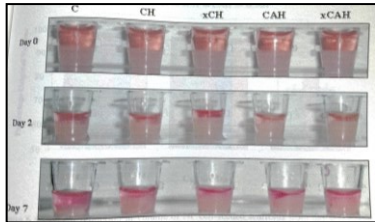


~4 years
Senior Director, US Commercial Data Science and Analytics, Interim Commercial Analytics

Damien O Halloran – Career Path

BEng (Biomedical Engineering)
PhD
5 Journal Articles
2 Grants

1998 - 2007



510K approved VCF
5 granted patents
2 Journal Articles

2008 - 2012



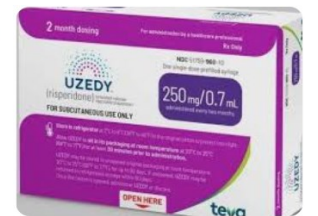
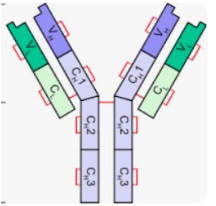
EO Validation (Batch Release)
Sterility Assurance
Clinical Batch Readiness

2012 - 2017



Copaxone® Pen Approval (EU)
Uzedy™ LAI Approval (USA)
3 x Biologics Early Development

2017 -



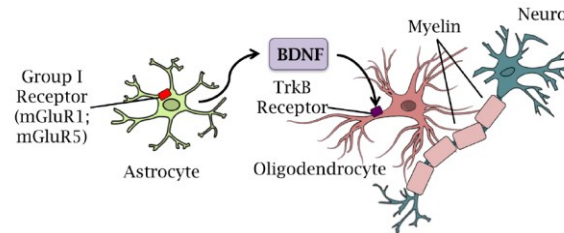
My Career Path: Island Breezes to Garden State Dreams



2010-2015

BS in Chemistry
University of Puerto Rico

- MARC Fellow
- 2 Summer internships (UConn, Rutgers University)



2015-2022

PhD in Toxicology
Rutgers University

- Cheryl F. Dreyfus, PhD
- NIH Fellowships
- BMS Fellow

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2022- Present

Teva Pharm

- Occupational Toxicologist, Global EHS&S

Brian Hamilton – Career Path



Princeton University

- 1995 to 2000
- Ph.D. in Chemical Engineering
- Focus on colloid science / complex fluids

Unilever

- 2000 to 2004
- Research Scientist
- Personal care product R&D
- Understanding of complex fluids from grad school highly leveraged

Merck

- 2004 to 2012
- Assoc Director Pharmaceutical Commercialization Technology
- Focus on solids manufacturing at external partners

Merial

- 2012 to 2013
- Senior Scientist III
- Manage team
- Extended experience to animal health and liquid/semi-solid formulations

Actavis

- 2013 to 2016
- Assoc Director MS&T
- Manage team
- Support all pharmaceutical dosage forms at internal and external sites

Teva

- 2016 to Present
- Dir and Sr Dir
- Manage team directly and matrix
- Expended experience with sterile, combination products, complex products, etc
- Strategic leadership for MS&T



Round 1:
Career Paths



Round 2:
Current Roles



Round 3:
Advise

Current Role: Product Science

Environment, Health, Safety & Sustainability

- Health-Based exposure Limits:
 - Occupational Exposure Limits to protect employees
 - Determines the level of engineering controls & PPE needed
 - Acceptable Daily Exposures (ADEs) to protect patients
 - Used by Quality for cleaning validation & risk assessments
- Safety Data Sheets (SDSs) of Teva produced Active Pharmaceutical Ingredients & Drug Products
 - Used for worker safety & to support shipping of products
- Ad hoc questions on toxicology & chemical exposure
- Predicted No Effect Concentrations (PNECs)
 - Used to assess the effect of pharmaceuticals in the environment
- Support ESG reports
 - Questions on EU REACH and other regulated chemicals
- EHS&S Academy
 - Arrange educational talks for employees

My Role at Teva US Commercial Organization

Data Science and Analytics

Innovative Medicine

Generics

Finance

Supply Chain

Human Resources

Commercial Analytics (IM)

National tracking

Marketing analytics

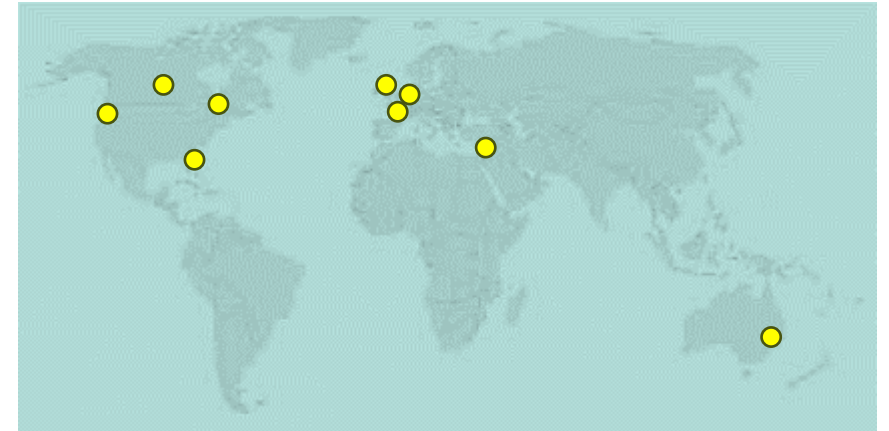
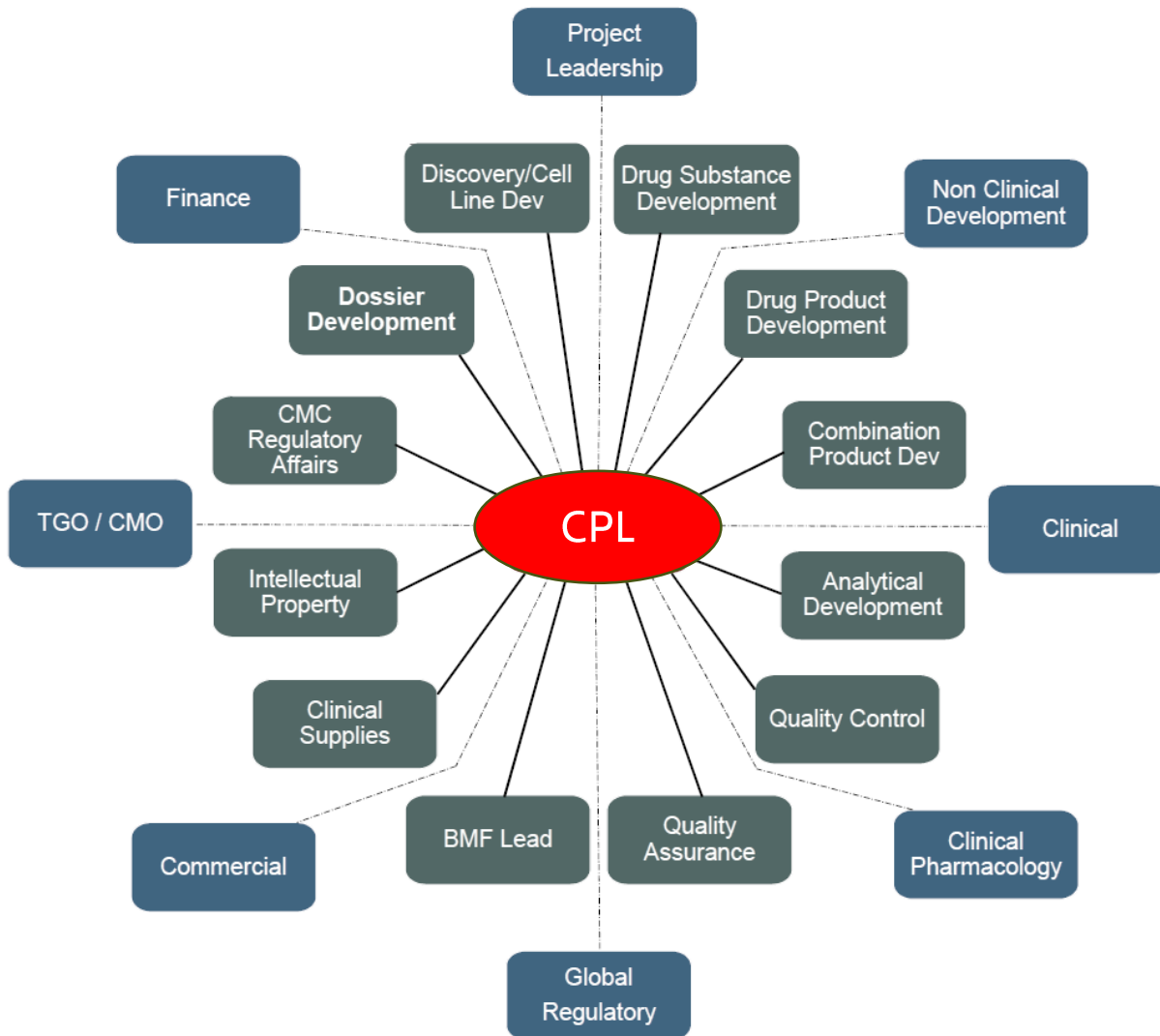
Field analytics

Patient services

Specialty pharmacy

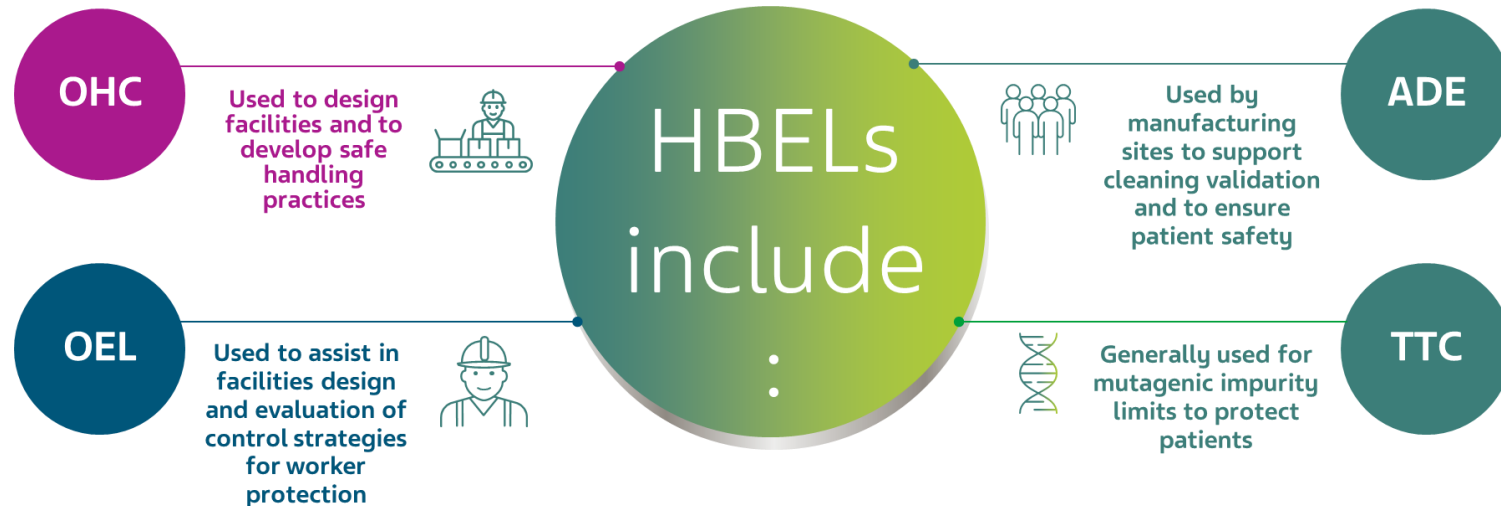
Digital analytics

CPL: CMC Program Leader



My Role as an Occupational Toxicologist

- The amount an individual can be exposed to daily for life that is unlikely to cause adverse health effects (EMA, 2014, PIC/s 2018).
- The goal is to protect patients and employees from possible undesirable health effects from an unintended exposure.



- Promote risk communication and recommend preventive actions, in collaboration with industrial hygienists and clinical/nonclinical safety teams.

External Manufacturing & Supply Operations (EMSO) in brief

325 Employees
across 9 countries



75 Markets



~2,170

Products

~9,175

Stock Keeping
Units (SKUs)

~500 Vendors
Groups/parent companies



~37% Spend from
10 largest vendors

~165

Product
Launches AOP '24

~18.1Bn

Units
~21% of TGO volume

~\$4.5Bn Sales
~31% of Teva Sales

~\$1.6Bn
Total Teva Procurement Spend





Round 1:
Career Paths



Round 2:
Current Roles



Round 3:
Advice

Career Advice

- Luck is when opportunity meets preparation
 - Constantly build skills
 - Look at job postings well before graduation
 - Fill in gaps
 - Enhance your presentation skills
 - www.toastmasters.org (international non-profit speaking & leadership org)
- Help others & build your network
 - *“Bring people with positive energy into your inner circle. If those around you are enthusiastic, authentic, and generous, you will be, too”*
 - from: <https://hbr.org/2011/07/managing-yourself-a-smarter-way-to-network>
 - Become a volunteer in a professional organization
 - Develop leadership skills & show interpersonal skills & teamworking ability
- Invest time in your LinkedIn profile & resume
 - Brainstorm with friends

My Advice



Be Curious, Ask Why

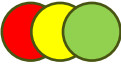


Growth Mindset



Always bring up solutions, not just questions

Preparing for Successful Career

- You don't have to nail it with your first step** 
 - Everyone's path is different
 - It's progressive
 - Don't compare – it's exhausting and unsatisfying
- Your qualifications/experiences don't restrict you**
 - Be open
- Find a mentor (If you can! - Don't stress if you can't)**
 - Doesn't have to be a professional – make sure there is trust/respect
- Look around for group forums in your interest area**
 - E.g. subcutaneouscobsortium.org – LinkedIn page

Your career is **part**
of your Life !

Always remember that you are N=1



Empower yourself to seek the mentorship you deserve.



Change is a redirection.

It's a chance to re-evaluate and come back stronger!



You can start before you feel ready.

Career Advice From Brian Hamilton



Your experience is valuable beyond the subject area you have studied



Focus on developing your skills rather than on advancement



Determine your path forward rather than waiting on others



Don't be afraid to take a chance. If it does not work out, you will learn from it and move on.

Q&A



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