



# Applied Pharmacoeconomic and Outcomes Research Forum

February 6<sup>th</sup> 2017



UNIVERSITY *of* CALIFORNIA  
SAN DIEGO

SKAGGS SCHOOL *of* PHARMACY  
*and* PHARMACEUTICAL SCIENCES

# 13 Forums and Eleven Years ...

1. AMCP Dossiers: Useful for Decision Making or Not? A Debate
2. Biologics: Drawing (or Crossing) the line of Cost vs. Benefit: A Case in Oncology
3. Quality Adjusted Life Years (QALY' s) for Decision Making: Views from Canada & the US
4. Using Large Databases to Inform Decision Making: Experience in Three Health Care Systems
5. Real World Data for Decision Making: Moving Beyond Clinical Trials
6. Pharmacoeconomics of Pharmacogenomics
7. Pharmacoeconomics & Pricing: Now & After Health Care Reform
8. What is the Business Case for Quality Improvement Initiatives?
9. Specialty Pharmacy Distribution Channels & Processes: Challenges & Opportunities Today & Under Health Care Reform
10. Biosimilars: Challenges and Opportunities for All.
11. Patient Reported Outcomes: Useful for Whom?
12. Health Services Research: Applications & Challenges Across Healthcare Systems
- 13. The New World of Biosimilars in the U.S. - Current Challenges to Inform Future Directions***



# Forum Objectives

- Discuss commonly encountered obstacles to conducting or utilizing results of PE studies for decision making
- Explore solutions from various perspectives
  - Managed Care
  - Government
  - Pharmaceutical/Biotech Firms
  - Medical Centers
  - Academia
- Create an environment & foundation to foster larger PE/Outcomes Research Interest Group



# Steering Committee

Welcome “Trainees”

***Michael S. Broder MD, MSHS***

*Partnership for Health Analytic Research*

***Charles Daniels, RPh, PhD***

*UCSD Health Department of Pharmacy*

***Jan D. Hirsch, RPh, PhD***

*UCSD, Skaggs School of  
Pharmacy & Pharmaceutical Sciences*

***Mirta Millares, PharmD, FCSHP, FASHP***

*Kaiser Permanente – CA Region*

***Anthony P. Morreale, Pharm.D., MBA, BCPS***

*PBM Services, Department of Veterans Affairs*

***Michael Pollock***

*PPD*

***Robert Schoenhaus, PharmD***

*Sharp HealthCare*

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***The New World of Biosimilars in the U.S.  
Current Challenges to Inform Future Directions***



# Quiz Time!

Smart Phones Down

Laptops & Tablets Closed

# Flashback...

2013

## Top 5 Sci-Fi Drugs



Dune  
The Spice  
Melange

2015

## 7 Most Famous TV Doctors of All Time



2014

## Top 10 Most Important Drugs



2016

## Pharma Trivia



 **SANDOZ**

Cyclosporine  
discovery: travel  
policy of “digging  
on location”





# Biosimilars *of the Animal Kingdom*

<http://listverse.com/2013/01/26/10-pairs-of-commonly-confused-animals/>

# Which is Which?

## Asian Elephant

2 head domes

Small ear

1 finger end of trunk

## African Elephant

1 head dome

Large ear

2 fingers end of trunk

Asian Elephant



African Elephant

# Which is Which?

## Alligator

Freshwater

Golf course visitor

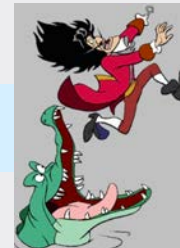
V-shaped snout

## Crocodile

Saltwater

“Happy” to see you

Captain Hook pursuer



Alligator



Crocodile



# Which is Which?

## Cheetah

Tan fur

Beware in Day

Spots: **SOLID BLACK**



Cheetah

## Leopard

Yellow fur

Beware at Night... Drags prey to tree top

Spots: **BROKEN RING PATTERN**



Leopard



# Which is Which?

## Toad

300 species

Short walking legs

Dry skin

Bonus feature: neurotoxin secreting glands

## Frog

400 species

Long leaping legs

Slimy skin

Bonus feature: certain body parts delicacies of French and Chinese cuisine

Toad



Frog



Which is Which?

More after the Break!



# Agenda

## **Biosimilars: Are we there yet?**

*Charles Daniels, PhD*

*Pharmacist-in Chief, UCSD Health*

## **Stakeholder Perspectives**

### **Pharmaceutical Manufacturer – Innovator and Biosimilar Products**

*Scott Foraker, JD*

*Vice President and General Manager, Biosimilars, Amgen*

### **Health Care System**

*Ambrose Carrejo, PharmD,*

*Director, National Pharmaceutical Contracting, Kaiser Permanente*

### **Health Plan**

*Mark Cziraky, PharmD*

*VP Research HealthCore Inc, an Anthem Company*

## **Panel Q & A/Discussion *All***

# Which is Which?

## Llama

200-350 pounds

Long banana-shaped ears

Guard herds of “B”

## Alpaca

100-175 pounds

Short spear-shaped ears

Sweater worthy



Llama



Alpaca



# Which is Which?

## Sea Lion

“walk” and “run” on land

Congregate in groups called rafts

Noisy barkers

## Seal

“Shimmy” like a caterpillar on land

Solitary

Special Ops Force

Sea Lion



Seal



# Which is Which?

## Donkey

Female called a Jenny

Tail of a cow

62 chromosomes



## Mule

Female called a Molly

Tail of a horse

63 chromosomes

Donkey



Mule



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