## AGENDA

## FDA Public Workshop

## Development of Non-Traditional Therapies for Bacterial Infections

Day 1: August 21, 2018
FDA White Oak Campus, 10903 New Hampshire Ave., Building 31 Great Room, Silver Spring, MD 20993.

| Time | Topic | Speaker(s) and Affiliation |
| :--- | :--- | :--- |
| 8:00-9:00 AM | Registration |  |
| 9:00 AM-9:15 AM | Introductory Remarks and Panel <br> Introduction | Ed Cox, FDA |

Session 1: Overview and Development Considerations

| 9:15 AM-9:45 AM | Overview of Non-Traditional <br> Therapies | John Rex, F2G Ltd. <br> Kevin Outterson, Carb-X |
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| 9:45 AM-9:55 AM | Clinician's Perspective | Helen Boucher, Tufts |
| 9:55 AM-10:05 AM | Pharmacology-Toxicology <br> Considerations | Owen McMaster, FDA |
| 10:05 AM-10:15 AM | Clinical-Pharmacology Considerations | Xiaohui (Tracey) Wei, FDA |
| 10:15 AM-10:25 AM | Microbiology Considerations | Kalavati Suvarna, FDA |
| 10:25 AM-11:00 AM | Clarifying Questions/Discussion | All Panelists |
| 11:00 AM-11:15 AM | BREAK |  |
| Sen 2: Mon |  |  |

Session 2: Monoclonal Antibody Development for a prophylaxis indication: Case Study 1
Monoclonal antibodies are proteins that target specific antigens and are being developed for treatment and prevention of various diseases. This session will discuss a hypothetical case of a monoclonal antibody targeting Staphylococcus aureus for the prevention of ventilatorassociated bacterial pneumonia.

Session Co-Chairs: Filip Dubovsky (MedImmune), Dmitri Iarikov (FDA)

| 11:15 AM-11:25 AM | Presentation of Case Study 1 | Mayurika Ghosh, FDA |
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| 11:25 AM-11:35 AM | FDA and Industry Perspectives (5 <br> minutes each) | Industry: Merck (Mary Beth <br> Dorr) <br> FDA: Mayurika Ghosh |
| 11:35 AM-12:25 PM | Moderated Panel Discussion (with <br> Audience Q and A) | All Panelists |
| 12:25 PM-12:35 PM | Summary |  |
| 12:35 PM-1:35 PM | LUNCH |  |
| 1:35 PM-2:15 PM: Public Comments <br> - Paul Grint, MD, AmpliPhi Biosciences <br> - Jeff Wager, MD, EnBiotix, Inc. <br> - Samareh Azeredo da Silveira Lajaunias, PhD, Combioxin <br> - Raphael J. Mannino, PhD, Matinas BioPharma, Inc. <br> - Elizabeth Leininger, PhD, Aridis Pharmaceuticals |  |  |

Session 3: Effect on Microbiome/Effect on Development of Resistance: Case Studies 2 and 3
Selective pressure from the presence of systemically administered antibacterial drugs in the gut can impact the gut microbiome, facilitate overgrowth of $C$. difficile and colonization by drug-resistant bacteria. There is also interest in developing products that can reduce carriage of organisms of certain resistance phenotypes in the gut and thereby potentially reduce the risk of acquiring infection among others in the community. In this session, hypothetical cases using both approaches will be discussed.

Session Co-Chairs: Kevin Outterson (Carb-X), Sumati Nambiar (FDA)

| 2:15 PM-2:25 PM | Presentation of Case Study 2 | Ramya Gopinath, FDA |
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| 2:25 PM-2:35 PM | FDA and Industry Perspectives (5 <br> minutes each) | Industry: Synthetic Biologics <br> (Michael Kaleko) |
| FDA: Ramya Gopinath |  |  |


| 2:35 PM-3:25 PM | Moderated Panel Discussion (with <br> Audience Q\&A) | All Panelists |
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| 3:25 PM-3:40 PM | BREAK | John Rex, F2G Ltd. |
| 3:40 PM-3:50 PM | Presentation of Case Study 3 | All Panelists |
| 3:50 PM-4:50 PM | Moderated Panel Discussion (with <br> Audience Q and A) |  |
| 4:50 PM-5:15 PM | Summary |  |

Day 2: August 22, 2018
FDA White Oak Campus, 10903 New Hampshire Ave., Building 31 Great Room, Silver Spring, MD 20993.

| Time | Topic | Speaker(s) and Affiliation |
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| 8:00 AM-9:00 AM | Registration |  |

## Session 4: Lysin Product Development: Case Study 4

Lysins are therapeutic proteins derived from bacteriophages with an ability to degrade bacterial peptidoglycan in a species-specific or genus-specific manner. These products have a direct effect upon pathogens and are proposed to be used as either monotherapy or as adjunctive therapy in combination with other antibacterial drugs.

Session Co-Chairs: William Hope (University of Liverpool); Daniel Rubin (FDA)

| 9:00 AM-9:10 AM | Presentation of Case 4 | Ed Weinstein, FDA |
| :--- | :--- | :--- |
| 9:10 AM-9:20 AM | FDA and Industry Perspectives (5 <br> minutes each) | Industry: ContraFect <br> Corporation (Cara Cassino) <br> FDA: Ed Weinstein |
| 9:20 AM-10:20 AM | Moderated Panel Discussion (with <br> Audience Q\&A) | All Panelists |


| 10:20 AM-10:40 AM | BREAK |  |
| :--- | :--- | :--- |
| 10:40 AM-11:30 AM | Summary of the workshop | Ed Cox; John Rex |
| 11:30 AM-11:45 AM | Closing Remarks |  |

## Panelists:

FDA:
Edward Cox, Mayurika Ghosh, Ramya Gopinath, Dmitri Iarikov, Daniel Rubin, Sumati Nambiar, Owen McMaster, Kalavati Suvarna, Xiaohui (Tracey) Wei, Edward Weinstein

## External:

Paul Ambrose, Michael Bevilacqua, Todd Black, Helen Boucher, Edward Burd, Cara Cassino, Wayne Dankner, Filip Dubovsky, Mary Beth Dorr, Shampa Das, Ann Eakin, Scott Evans, William Hope, Michael Kaleko, Wes Kim, Joe Larsen, Elizabeth Leininger (Day 2), David Melnick, Kevin Outterson, Toni Perez, Peter Potgeiter, John Rex, Mary Shatzoff, Vu Truong (Day 1), Brian Tse

Speaker slides and other workshop material can be found at:
https://www.fda.gov/Drugs/NewsEvents/ucm606052.htm
Public Internet Access:
Network: FDA-PUBLIC
Password: publicaccess

