# BioGears Conference 2020

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| **B** Breaks and Networking | **K** Keynote and Conference Highlights | **S** Session Talk |

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## MARCH 18 • WEDNESDAY

| 8:30am – 9:00am | B | **Breakfast/Coffee** | Silver Spring Civic Center (Silver Spring Civic Building, 1 Veterans Pl, Silver Spring, MD, 20910) |
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| 9:00am – 9:45am | K | **Featured Speaker: Thomas B. Talbot, MD, MS, FAAP** | |
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| | | *Speakers: Thomas B. Talbot, MD, MS, FAAP* | Silver Spring Civic Center (Silver Spring Civic Building, 1 Veterans Pl, Silver Spring, MD, 20910) |
| | | "BioGears is the Future" | |

| 9:45am – 10:00am | B | **Coffee Break** | Silver Spring Civic Center (Silver Spring Civic Building, 1 Veterans Pl, Silver Spring, MD, 20910) |
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| 10:00am – 10:30am | S | **BioGears Models: Multi-Trauma Physiology** | |
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| | | *Speakers: Nathan Tatum* | Silver Spring Civic Center (Silver Spring Civic Building, 1 Veterans Pl, Silver Spring, MD, 20910) |
| | | We will present BioGears modeling and validation pertaining to multi-taruma physiology. When the ultimate goal of field medic is to keep the patient alive long enough to obtain proper medical care, certain questions start to arise. How would a combination of drugs to stop bleeding and manage pain affect total physiological function? Would initiating a minor transfusion reaction (when only mismatched types of blood are available) provide the patient enough blood to survive despite the complications? In this session, those questions and more are explored as we look at the modeling design and implications of hemorrhaging, tranexamic acid dosing, and transfusion administration. | |

| 10:30am – 11:15am | S | **BioGears: API Examples and Implementation** | |
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| | | *Speakers: Steven A. White, PhD* | Silver Spring Civic Center (Silver Spring Civic Building, 1 Veterans Pl, Silver Spring, MD, 20910) |
| | | This talk will focus on leveraging the BioGears API to create your own C++ application. Discussions will highlight our "how-to" libraries and how to create your own! Highlights will include asthma attack, burncare, and multi threading. | |

| 11:15am – 12:15pm | S | **BioGears Models: Utility Tools** | |
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| | | *Speakers: Steven A. White, PhD, Lucas Marin, Matt McDaniel* | Silver Spring Civic Center (Silver Spring Civic Building, 1 Veterans Pl, Silver Spring, MD, 20910) |
| | | We will present a discussion of external tools that have been developed that can help you run, use, and evaluate BioGears! Details and demonstration of these tools will be highlighted, including: User interface, Unreal Engine plug-in, plotting tools, and command line utilities. | |

| 12:15pm – 12:30pm | B | **Wrap Up, Q&A** | Silver Spring Civic Center (Silver Spring Civic Building, 1 Veterans Pl, Silver Spring, MD, 20910) |
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