

# Newsletter

Winter 2016

## **Dear Members, Colleagues, and Friends of CyBHOR:**

2016 has been a busy year for CyBHOR! Over the course of the year the IAB met twice, enjoying the great hospitality at University of Florida and at the home of the FDA in Silver Spring, MD. Our IAB gave great feedback on the center's projects and we are geared up and ready with great tasks for 2017.

## **Recent Events**

### ***Fall IAB Meeting***

In October, the IAB, guests and researchers met at the home of the FDA in Maryland. With almost all IAB members represented, the center's projects were presented and after much fruitful discussion, the IAB chose ten research projects for 2017. The group also enjoyed tours of the labs as well presentations by the FDA researchers.



### ***Workshop on Civil Aviation and Surgery:***

In early December, we welcomed researchers in the surgical and civil aviation arena to Houston.

Attendees explored the possibility of technology transfer between the communities and opportunities to adopt approaches that address patient/customer specific needs. The discussions elicited innovative ideas in many areas and promoted sharing of expertise between the field of surgery and civil aviation. Highlights of the workshop were a behind the scenes visit to NASA and an organ concert by French astronaut Jean-Loup Chretien.

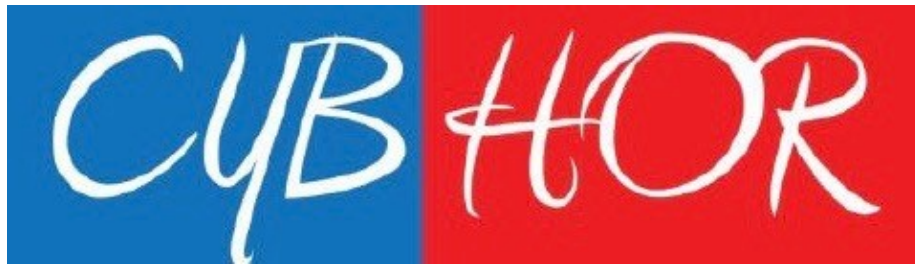


## **Publications, Grants & Awards**

### **Select Publications**

Nguyen, T. B., Huang, A. Y., Fikfak, V., Dunkin, B. J., & Garbey, M. (2016). Image-guided simulation of tissue deformation using a mechanical model on a surgical application. *Computer Methods in Biomechanics and Biomedical Engineering*, 1-9.

Garbey, M., Salmon, R., Fikfak, V., & Clerc, C. O. (2016). Esophageal stent migration: Testing few hypothesis with a simplified mathematical model. *Computers in Biology and Medicine*, 79, 259-265.



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## Awards

Juliette Rambourg received the best paper award for her work on the BoardProbe at the conference “Association Francophone d’Interaction Homme-Machine” in Fribourg, Switzerland. Congratulations, Juliette!



## Upcoming Meetings/Events

### ***Spring 2016 CyBOR IAB Meeting***

Host: Houston Methodist

Date: April 12 & 13, 2017

Location: Houston, TX

## Contact Information and Submissions for Future Newsletters:

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## 2017 CyBOR Projects

Project #	Project	PI
FL-001	Telementoring in Emerging Markets	Dunkin
FL-002	Image-guided Liver resections using Hepato-Biliary Ductal Coordinates and Smart Trocar	Dunkin
FL-003	Coordinated Operating Room Network (CORNET) – An Artificial Intelligence System	Joerger
FL-005	Computational Modeling of the Aortic Arch	Berceli
FL-006	Computational Framework for the Modeling of Stent Migration	Salmon
FL-008	GPU Optimizing Software for Fistula Maturation utilizing Navier Stokes Solver	Lesage
FL-011	Intelligent Back table Manager with Passive Sensors	Garbey
FL-012	Evaluation of Arteriovenous Fistula Hemodynamics and its Influence on Paclitaxel Delivery from a Drug Coated Balloon	Berceli
FL-013	Optimizing the Surgical Flow of a Large flexible endoscopy suite using a cyber-physical system integrating a real time multiscale agent-based engine	Garbey
FL-014	Characterization of Adipose Derived SVF for Therapeutic Application	Katz