Biologically-Inspired Autonomous Sea Vehicle MURI Review Meeting

Wednesday, September 30, 2003	
7:30 am to 8:30 am	Registration and Breakfast
8:30 am to 8:45 am	Opening Remarks **Bob Brizzolara, ONR**
8:45 am to 9:00 am	Overview **Hilary Bart-Smith, University of Virginia**
9.00 am to 10:40 am	Morphometrics and ray kinematics **Frank Fish (WCU)** "Investigations of batoid morphology and efficient swimming by mantas" (20 min) **Jessica Hoffman (WCU)** "Examining behavioral responses for stability of batoids in response to waves" (15 min) **Rachel Nichols (WCU)** "Batoid tails: Gross and sensory morphology" (15 min) **Scott Russo, Silvia Blemker, Hilary Bart-Smith (UVA)** "Study of batoid fin musculoskeletal structure" (20 min) **Keith Moored (UVA), Melissa Green (NRL), Hilary Bart-Smith (UVA)** "Kinematic model development for batoid rays" (15 min) **Jean-Noel Pederzani, Hossein Haj-Hariri (UVA)** "Hydrodynamic study of kinematic model" (15 min)
10:40 am to 11:00 am	Break
11:00am to 11:45 am	Dynamics and Controls **teD Iwasaki (UCLA)** "Overview" (5 min) **Justin Blair (UVA)**"Optimal gait analysis for batoid systems" (20 min) **Dan Quinn (UVA)** "Application of Panel Method" **Tom Bliss (UVA), teD Iwasaki (UCLA), Hilary Bart-Smith (UVA)** "Neural control of active tensegrity structure" (20 min)
11:45 am to 12:30 pm	Hydrodynamics/ experiments **Peter Dewey, Melissa Green, Lex Smits (Princeton University); Keith Moored (UVA)** "Hydrodynamics of bio-inspired fin propulsion"
12:30 pm to 1:30 pm	Lunch
1:30 pm to 2:15 pm	Hydrodynamics/ simulations **Mehdi Saadat, Jean-Noel Pederzani, Daniel Quinn, Hossein Haj-Hariri (UVA)** "Simulation of fluid-structure interaction: Analysis of bio-inspired motions"
2:15 am to 2:45 pm	Structures **Trevor Kemp, Keith Moored, Hilary Bart-Smith (UVA)** "Tensegrity-based platform for a bio-inspired batoid fin: analysis and implementation" (30 min)
2:45 pm to 3:00 pm	Free-swimming platform design for scientific study **Zheng Chen, Hilary Bart-Smith (UVA)** "IPMC Enabled Robotic Manta Ray: Fabrication and Testing"
3:00 pm to 3:30 pm	**Discussion and feedback**
3:30 pm to 4:30 pm	**Lab tour**
6:00 pm	**Banquet at the Rotunda of Chancellor Green**