



Research Opportunities Through AFOSR

9 March 2016

Colonel Andrew Szmerekovsky, PhD

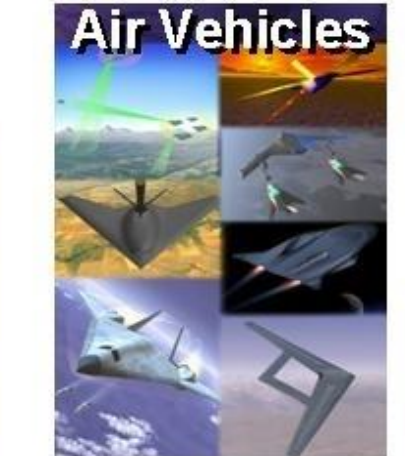
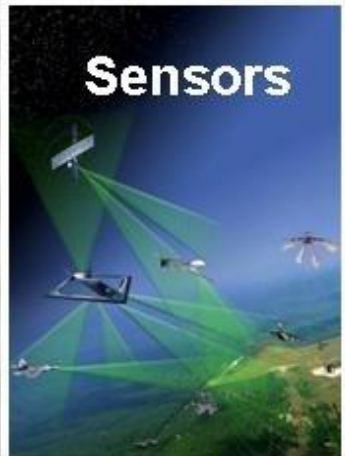
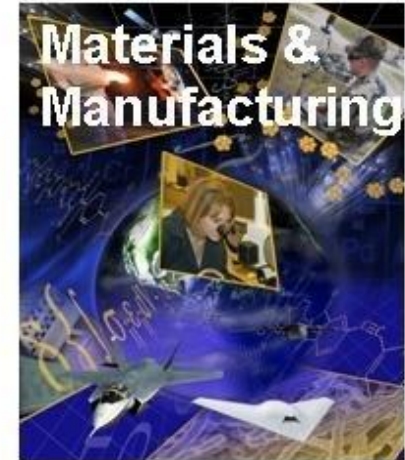
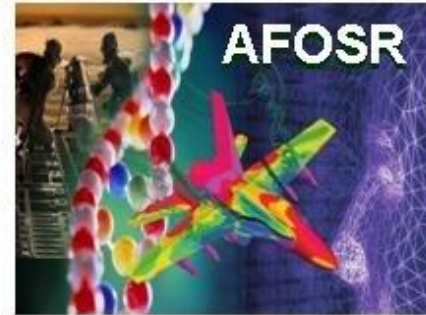
Deputy Director

Air Force Office of Scientific Research

Air Force Research Laboratory

Integrity ★ Service ★ Excellence

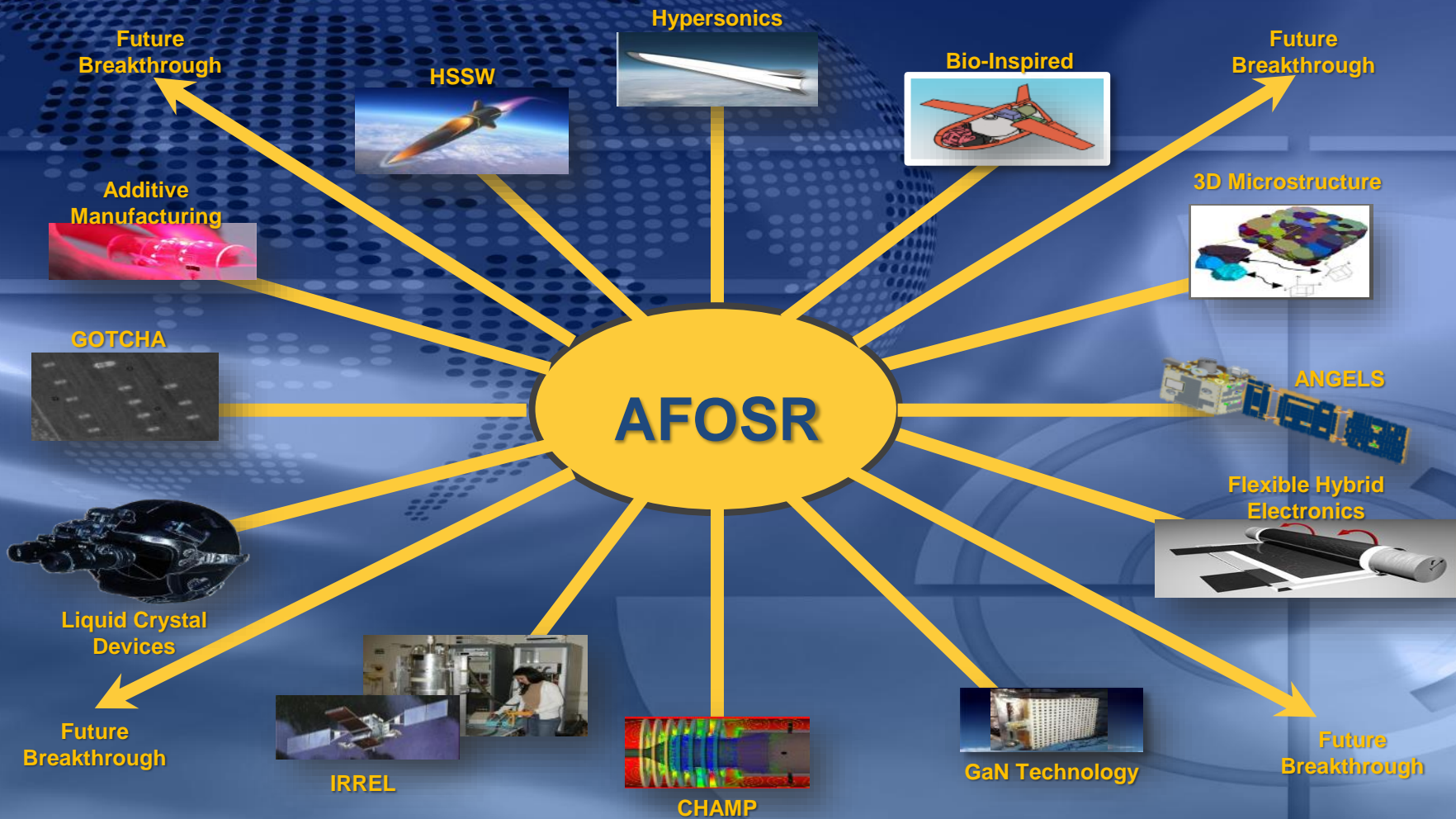
AIR FORCE RESEARCH LABORATORY (AFRL)



The Air Force's Corporate Research and Development Laboratory



AFOSR Basic Research:



The foundation on which AFRL technology is built.

REVOLUTIONARY. RELEVANT. RESPONSIVE.





AFOSR Technical Strategy



Mission: Discover, shape, and champion basic science that profoundly impacts the future Air Force

Identify
breakthrough
research
opportunities here
& abroad

Find



Fund

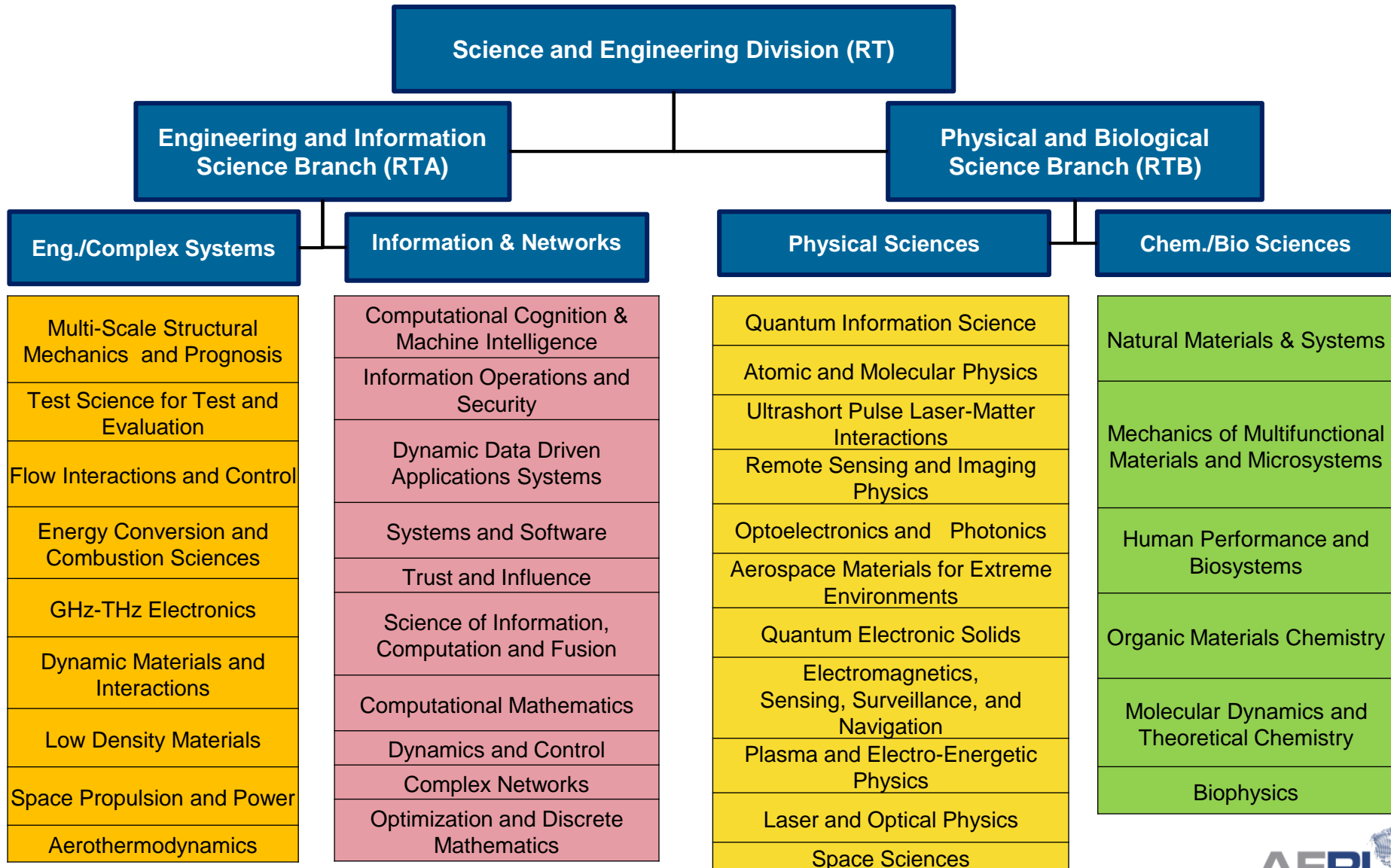
Forward

Foster revolutionary
basic research for Air
Force needs

Transition technologies to
DoD and industry



AFOSR Portfolios (U.S.)





Funding Opportunities



- **AFOSR invites proposals in broad research areas through the general **Broad Agency Announcement (BAA)** and other program specific BAAs.**
 - All proposals go through peer or scientific review process
 - Grants are selected for award on a competitive basis
- **To apply visit www.grants.gov**
 - **Search all AFOSR opportunities with the key word "AFOSR" or by CDFAs numbers 12.800, 12.630 and 12.910**
 - **Go directly to the 2015 BAA by visiting**

<http://www.grants.gov/web/grants/view-opportunity.html?oppld=276388>

- **The BAA is organized by topic**
- **All application forms and instructions are provided on the site, but should you have questions contact the appropriate POC listed on the BAA**



University Centers of Excellence



CoE: a combined effort among AFOSR, another AFRL Technology Directorate (TD), and an outstanding university or team of universities to perform high priority collaborative research

- Assured Cloud Computing (RI/Univ. of Illinois)
- High-rate Deformation Physics of Heterogeneous Materials (RW/Cal Tech)
- Integrated Computational Material Science and Engineering of Structural Materials (RX/Johns Hopkins)
- Guided Wave Infrared Sources (RY/Univ. of Wisconsin/Penn State)
- Nature-inspired Sciences (RW/Univ. of Washington)
- Advanced Bioprogrammable Nanomaterials (RX/Northwestern)
- Science of Electronics in Extreme Electromagnetic Environments (RD/Univ of New Mexico)

- **Advertised: Astrodynamics (BAA Closes 25 April 2016)**
- **Pending: Multi-Fidelity Modeling of Combustion Instability (RQ)**



OSD University Research Initiatives (URI)



- **Multidisciplinary University Research Initiatives (MURI)**
 - ONR Leads, publishes FOA
 - 5-year grants, \$500K 1st year, \$1.5M after
 - Air Force: 5 Topics/Year, increasing to 8 for FY17
- **Defense University Research Initiative Program (DURIP)**
 - Improve the capabilities of U.S. institutions of higher education to conduct research and to educate scientists and engineers in areas important to national defense by providing funds for acquisition of research equipment.
 - 1-time grants up to \$1.5M for instrumentation
 - FY16: \$17M



Early Career Programs



- **Presidential Early Career Award for Scientists and Engineers (PECASE)**
 - Recognizes exceptional potential for leadership at the frontiers of scientific knowledge
 - Air Force nominates 4-6 per year
 - \$200K/yr x 5 years
 - White House OSTP makes final selection
- **Young Investigator Research Program (YIP)**
 - Supports scientists and engineers who have received Ph.D. or equivalent degrees in the last five years and show exceptional ability and promise for conducting basic research.
 - \$120K/yr x 3 years (up to 5) each
 - FY16: 57 (\$16.2M)
 - FY17: Earlier—anticipating June Deadline for proposals



Resident Research Programs



- **AFRL Resident Research Associate Program**
 - Administered by the National Research Council (NRC)
 - Provides Postdoctoral Scientist and Engineer opportunities at
 - AFRL Technical Directorates, AFIT, Air Force Academy
 - 12-month duration, renewable up to 3 years
 - Four selection panels per year
 - Currently 84 Associates
- **Summer Faculty Fellowship Program (SFFP)**
 - 8-12 weeks of research experience for up to 150 faculty, 75 Grad Students
 - AFRL Technical Directorates, AFIT, USAFA
 - Faculty can bring graduate students (up to 75)



Building International Relationships



- **Promote Awareness – Accelerate S&T advances and transitions to the U.S. and avoid technological surprise**
 - **Engagement – Strengthen partnerships**
 - **Build Relationships – International goodwill**
- **Nano-Bio Information Technology (Taiwan, Korea)**
 - **Brain Science (Korea)**
 - **Space Situational Awareness (Chile)**
 - **Ultra-Short Pulse Lasers (Europe)**
 - **Quantum Information Science (UK)**





Explore AFOSR

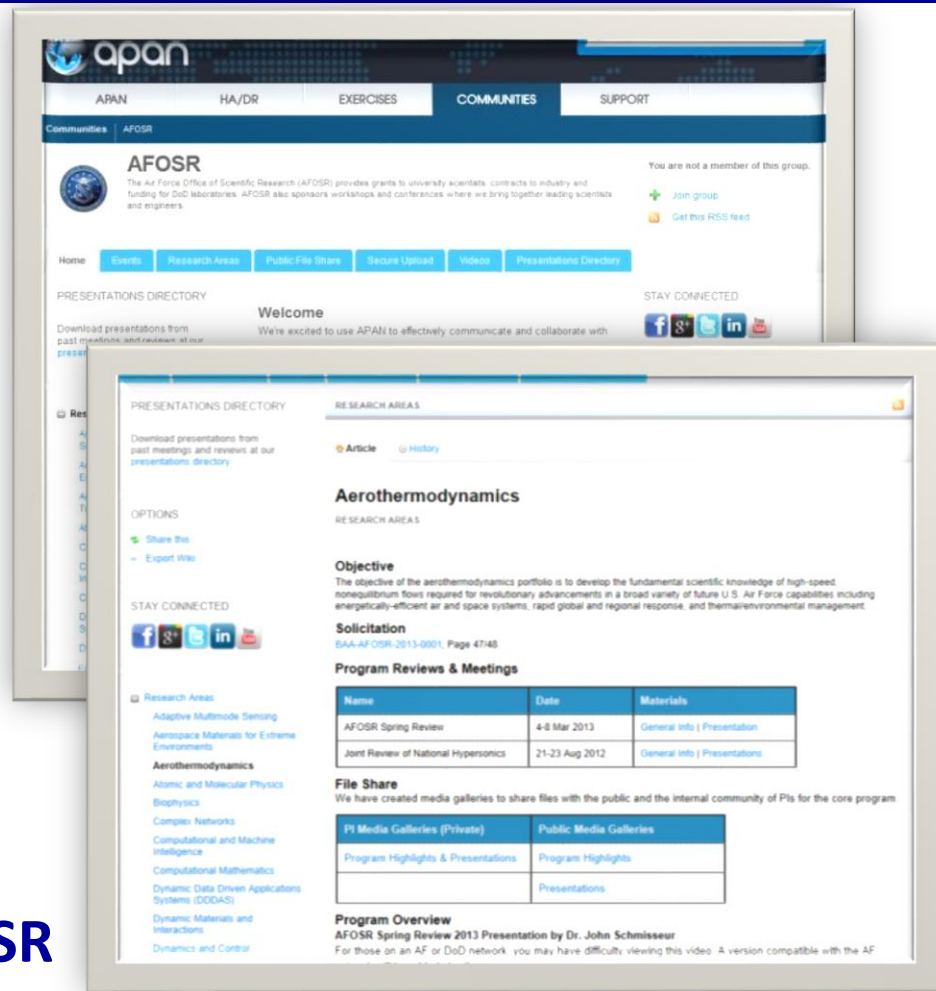


- **APAN Collaboration Website**

- Presentations
- Portfolio descriptions
- Upcoming events
- Funding opportunities

- **Other social media sites**

- Facebook, Twitter, YouTube



www.facebook.com/afosr



www.twitter.com/afosr



www.youtube.com/TheAFOSR



<https://community.apan.org/afosr>





Questions

