# Jeff Schantz

Sector Leader of Science + Technology at EYP Inc.

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## Summary

Member of the creative class, Science + Technology Architect, which means I design laboratory buildings where ever they are. My clients include many leading universities, research institutes, governments, and companies in very diverse fields. Most days, I have the best job on earth. It allows me to explore my creative and scientific interests. Mostly, I try to seek out projects that are at the cutting edge of my field and create the environments that move the state of the art forward.

Specialties: Laboratory and Research Facilities, Nanotechnology, Convergence Science, Molecular Engineering, Synthesis, Biocontainment, Biomedical, Translational, Imaging and Characterization, and Academic Medical Research and Education Facilities Design

## Experience

**Adjunct Faculty at Massachusetts College of Art and Design**

January 2016 - Present (1 year 4 months)

MassMaker Studio Spring 2016

Thesis 2016

**Sector Leader of Science + Technology at EYP Inc.**

March 2015 - Present (2 years 2 months)

Trusted Advisor for leading Science + Technology clients around the world.

**Principal at JACOBS CONSULTANCY, INC. | Laboratory Planning Practice**

December 2011 - February 2015 (3 years 3 months)

Principal for Laboratory Planning and Design.

**Grant Reviewer at National Institutes of Health**

September 2009 - November 2014 (5 years 3 months)

Grants review for ARRA, STOD G20, and other programs. Technical reviewer for ANSI Standard Z9 14-2014 Testing and Performance Verification Methodologies foor Ventilation Systems for BSL-3 and ABSL-3 Facilities

**Senior VP Science + Technology at HOK**

July 2004 - December 2011 (7 years 6 months)

Strategic Director for Science + Technology

**Principal at Lord Aeck Sargent**
June 1997 - August 2004 (7 years 3 months)
Principal Science + Technology

**Principal at Jenkins Peer Architects**
February 1994 - May 1997 (3 years 4 months)
Principal

**Director Information Technologies at EYP Architecture & Engineering**
February 1993 - February 1994 (1 year 1 month)

**Associate at Ellenzweig**
January 1987 - February 1993 (6 years 2 months)

**Intern at Lane Frenchman**
June 1985 - January 1987 (1 year 8 months)

**Alumni at MIT**
1982 - 1985 (3 years)

## Publications

**Convergence Science Empowers Research Innovation**
Tradeline October 5, 2016
Authors: Jeff Schantz, Chris Baylow

Today's scientific researchers are improving their productivity, research outcomes, and technological advances by using the knowledge of many disciplines. This emerging field of "convergence science" goes beyond traditional collaboration to the much larger intellectual intersection of engineering, physical sciences, life sciences, and other disciplines, plus big data. In this model, research includes funding from private sources or foundations that demand marketable results quickly. Therefore, the spaces that support convergence must be capable of rapid adaptation to respond to shifting research focuses.

**Advanced characterization cores: Facility requirements for stability, precision, and accuracy**
Tradeline Core Facilities 2015 May 4, 2015
Authors: Jeff Schantz

Robust characterization and imaging cores are required for research in materials, nanotechnology, molecular engineering, biological synthesis, soft matter, and membranes. As these fields begin to converge in engineering and applied sciences, new technologies are being applied and perfected that make proving results more accurate and reliable. Jeff Schantz illustrates planning and design best practices – and costs – for advanced imaging cores with demanding high performance controlled environments,

including STEM/TEM, AFM, Laser Spectroscopy, Optical Imaging, Spectral Interferometer Technology, and MRI/CT/PET. He highlights particular requirements and solutions for vibration, EMF/RFI, temperature stability, humidity, acoustics, power, and particulate control.

**University of Chicago's Institute for Molecular Engineering A Building as Precise as the Instruments that Inhabit It**

Tradeline August 1, 2012

Authors: Jeff Schantz, Steven M. Wiesenthal, FAIA

**Systems Engineering and Operational Requirements for NASA Mars Sample Receiving Facility Planetary Protection System: Robotic Assisted Sample Processing**

IEEE Aerospace Conference (2011) March 6, 2011

Authors: Jeff Schantz, David W. Beaty, Carlton C. Allen, Deborah S. Bass, Karen L. Buxbaum, James K. Campbell

It has been widely understood for many years that an essential component of a Mars Sample Return mission is a Sample Receiving Facility (SRF). The purpose of such a facility would be to take delivery of the flight hardware that lands on Earth, open the spacecraft and extract the sample container and samples, and conduct an agreed-upon test protocol, while ensuring strict containment and contamination control of the samples while in the SRF. Any samples that are found to be non-hazardous (or are rendered non-hazardous by sterilization) would then be transferred to long-term curation. Although the general concept of an SRF is relatively straightforward, there has been considerable discussion about implementation planning.

The Mars Exploration Program carried out an analysis of the attributes of an SRF to establish its scope, including minimum size and functionality, budgetary requirements (capital cost, operating costs, cost profile), and development schedule. The approach was to arrange for three independent design studies, each led by an architectural design firm, and compare the results. While there were many design elements in common identified by each study team, there were significant differences in the way human operators were to interact with the systems. In aggregate, the design studies provided insight into the attributes of a future SRF and the complex factors to consider for future programmatic planning. Key Words: Mars—Sample Receiving Facility (SRF)—Mars Sample Return (MSR)—Curation—Biosafety—Test protocol—Sample preservation—Containment—Clean room—NASA—Planetary protection. Astrobiology 9, 745–758.

**ORNL's Advanced Microscopy Laboratory Houses Next-Generation Electron Microscopes Building**

Tradeline August 16, 2006

Authors: Jeff Schantz, Larry Allard

The Microscopy and The Advanced Microscopy Laboratory (AML) at Oak Ridge National Lab (ORNL) is a world-leading facility housing 4 aberration-corrected STEMs. Designed and constructed to provide the best environment for aberration-corrected electron optical instrumentation, the AML has been a great success. Minimization of AC magnetic fields, floor vibrations, air flow volume, temperature stability and acoustic sound were key design criteria. Special construction practices were followed to ensure optimum building performance.

**Building Better Biosafety Containment Labs for the Future Planning High Efficiency, High Capacity BSL-Rated Integrated Animal Research Labs**

Tradeline February 15, 2006

Authors: Jeff Schantz

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## Projects

**Loop Road Holdings LLC Master Plan**

June 2016 to Present

Members:Jeff Schantz, Richard Clarke, AIA, Leigh Stringer

Regeneron Pharmaceuticals Inc.has development plans to build a roughly 1 million-square-foot research and development campus on a portion of a vacant 100-acre parcel in the town of Greenburgh.

Purchased last year for $73 million by Loop Road Holdings, a wholly owned subsidiary of Regeneron, the undeveloped property adjoins the company's headquarters at The Landmark at Eastview. The parcel is on the west side of Saw Mill River Road, approximately 300 feet from the intersection of Old Saw Mill River Road and Grasslands Road.

Regeneron plans to construct nine buildings totaling 1,016,190 square feet of research and development space on the site, in addition to five parking structures, some of which will be underground. Building sizes will range from 40,000 square feet to 280,000 square feet.

**The Jackson Laboratory Ellsworth Facility**

February 2016 to Present

Members:Jeff Schantz, Rohit Saxena, Patricia Delmas, John Fitzpatrick, Jasin Effland

New state-of-the-art 134,900-square-foot vivarium facility to maintain research mouse models in Ellsworth, Maine

**University of New Mexico Physics Astronomy Interdisciplinary Sciences**

January 2016 to Present

Members:Jeff Schantz, Kip Ellis, Leslie Sims AIA, LEED AP BD+C, Van H. Gilbert Architects (VHGA)

PAIS, a new state-of-the-art high-research science facility, replaces the aging Physics and Astronomy building on north campus, will be constructed at the site of the existing City of Albuquerque water reservoir, just north of Central Ave. between Yale Blvd. and Cornell Dr. Because of its strategic location, UNM officials believe the new facility presents an exceptional opportunity to raise the University's scientific profile and, at the same time, expand the architectural legacy of the historic campus.

**University of Florida Herbert Wertheim Laboratory for Engineering Excellence**

December 2014 to Present

Members:Jeff Schantz, Patricia Delmas, Christian Hoenigschmid, John Saad

TRANSFORMATION BEGINS AT THE HEART OF THE UF CAMPUS

The University of Florida’s newest addition, the Herbert Wertheim Laboratory for Engineering Excellence, will be home to the public-private partnership that is Powering the New Engineer to Transform the Future! Join us for a celebration of engineering excellence and Florida’s emerging role in the global innovation economy.

**University of Maryland A. James Clark Bioengineering Building**

February 2011 to Present

Members:Jeff Schantz, Ballinger, Patricia Delmas, Gustafson Bill, Craig Spangler, William Bentley

New 180,000 SF Research Building for the A. James Clark School of Engineering Department of Bioengineering and Fischell Biomedical Devices Institute. Completed programming and planning June 2011. Design begins Q1 2013.

**New York State Consolidated Laboratory Master Plan**

February 2012 to August 2013

Members:Jeff Schantz, Ken Brown, Patricia Delmas, Monte Wilson, Matt Friesen

Planning, Programming and Master Planning for a new Consolidated Laboratory for the State of New York.

**University of Chicago PSD/IME Strategic Planning Study Phase I**

February 2013 to August 2013

Members:Jeff Schantz, Megan Holder, John Ekholm

Strategic planning and programming for the Division of Physical Sciences and Institute for Molecular Engineering.

**The Jackson Laboratory Center for Medical Genomics**

January 2012 to October 2014

Members:Jeff Schantz, Centerbrook Architects, Tsoi Kobus Architects, BR+A Engineers, BVH Engineers, Whiting-Turner, Gilbane, John Fitzpatrick

he Jackson Laboratory’s eight decades of research and the medical expertise of Connecticut’s universities and hospitals. JAX Genomic Medicine will discover the complex causes of disease, develop diagnostics and therapeutics, and build Connecticut’s bioscience industry.

JAX Genomic Medicine will be built on a 17-acre site on the University of Connecticut Health Center campus in Farmington. Initial operations will begin in 2012 using leased space while a 173,000-square-foot permanent facility is designed and built. Construction will begin in 2013, and the new facility will open in 2014. It will house 300 biomedical researchers, technicians and support staff in state-of-the-art computing facilities and laboratories.

**University of Chicago William Eckhardt Research Center**

September 2008 to September 2014

Members:Jeff Schantz, HOK, AEI, Interactive Design, John Ekholm, Abbie Gregg

The William Eckhardt Research Center, completed in 2015, creates a North Science Quadrangle nestled between the Joe and Rika Mansueto Library and the Donnelley Biological Learning Center. The building is joined to the Kersten Physics Teaching Center by a bridge across 57th Street. The William Eckhardt Research Center is home to the Institute of Molecular Engineering and several sections of the Physical

Sciences Division, including the Department of Astronomy and Astrophysics and the Kavli Institute for Cosmological Physics.

**University of Southern California Michelson Center for Convergent Bioscience**

September 2011 to Present

Members:Jeff Schantz, Paul Woolford AIA, IIDA, LEED® AP, Melissa Poole-Schild, Kristina Raspe, Abbie Gregg

New 200,000 GSF research building for the Viterbi School of Engineering and the Dornsife College of Arts and Sciences. Includes Nanofabrication, Characterization, Imaging, Molecular Foundry, Chemical and Biological Synthesis, Optical and Laser Microscopy.

**The Francis Crick Institute**

August 2008 to Present

Members:Jeff Schantz, HOK London, ARUP

The Francis Crick Institute is a unique partnership between six of the UK's most successful scientific institutions. Established as a charity, it will be a world-class research centre and one of the most significant developments in UK biomedical science for a generation.

The Francis Crick Institute will be an entirely new institute with a distinctive vision of how medical research should be conducted. It will play a key role in creating the foundation of knowledge on which this century's improvements in health will be based.

http://www.youtube.com/watch?v=awIEHJK6Ujo

**Washington, DC Consolidated Forensics Laboratory**

March 2006 to December 2010

Members:Jeff Schantz, HOK, Ken Brown, Patricia Delmas

New 350,000 GSF Consolidated Laboratory for Washington DC Metropolitan Police Forensics Unit, Department of Public Health, and Office of the Chief Medical Examiner.

Special Mention – Collaborative Science: The District of Columbia, Consolidated Forensics Laboratory, Washington, D.C. Submitted by HOK.

**New Jersey Public Health Environmental and Agricultural Laboratory**

September 2005 to January 2011

Members:Jeff Schantz, HOK, Working Buildings, R.G. Vanderwiel, Turner Construction, Ken Brown, Patricia Delmas

New 200,000 GSF Consolidated Laboratory for the State of New Jersey. Includes Clinical laboratories for the Department of Health and Senior Services, Environmental Testing, and Department of Agriculture. Project

features BSL-2/3 labs, Newborn Screening, Environmental Chemistry, Animal and Plant Sciences and Large Animal Necropsy.

**University of Florida Lake Nona Research Center**

June 2008 to December 2010

Members:Jeff Schantz, HOK, AEI

New 100,000 GSF Research Building at the Lake Nona Medical City in Orlando, FL. Houses College of Pharmacy labs, including ABSL-3, BSL-2 and biomedical research.

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## Skills & Expertise

**Nanotechnology**
**Biomedical Engineering**
**Research**
**Art**
**Construction Management**
**Sustainable Design**
**Green Building**
**Sustainability**
**Construction**
**Master Planning**
**Higher Education**
**Architecture**
**Architectural Design**
**Urban Design**
**Planning**
**Strategic Planning**
**Construction Documents**
**Design Development**
**Space Planning**
**Renovation**
**Urban Planning**
**Design Research**
**Comprehensive Planning**
**Space-planning**
**Submittals**
**Space planning**
**Project Planning**
**LEED**
**Revit**
**BIM**
**Site Planning**
**Historic Preservation**
**Mixed-use**
**Construction Drawings**
**Sustainable Architecture**

**SketchUp**
**Architectural Drawings**
**Feasibility Studies**
**AIA**
**Urban**
**Design Management**
**AutoCAD Architecture**
**Urbanism**
**Landscape Architecture**
**Land Use Planning**
**Architectures**
**Rhino**

## Education

**Massachusetts Institute of Technology**
M Arch, Architecture, 1982 - 1985

**Massachusetts College of Art and Design**
BFA, Architecture, 1979 - 1982

## Interests

All things science, dogs, birds, cooking, traveling, music, cigars, bourbon

## Organizations

**American Institute of Architects**
June 1996 to Present

## Volunteer Experience

**Fundraising Volunteer - Real Men Wear Pink at American Cancer Society**
August 2016 - Present

Real Men Wear Pink is a distinguished group of community leaders raising awareness and funds for this year's Making Strides Against Breast Cancer event. Together they are making a difference in the fight against breast cancer.

The American Cancer Society is determined to save lives from breast cancer by promoting early detection and prevention, funding groundbreaking research, and giving patients support wherever and whenever they need it. Because of the passion of supporters like you, Real Men Wear Pink of Boston candidates are helping create a world free from the pain and suffering of breast cancer.

http://main.acsevents.org/site/TR/MakingStridesAgainstBreastCancer/MSABCCY16NE?pg=entry&fr_id=78208

**Trustee at Large at Jewish Federation of Greater Atlanta**

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Contact Jeff on LinkedIn