Year in review
## School facts

### Engineering students

- **1,233 UNDERGRADUATE**
- **834 MASTER’S**
- **394 DOCTORAL**

### Students come from

- **48 STATES**
- **42 COUNTRIES**

### Most popular countries outside the U.S.:
- China
- India
- South Korea
- Taiwan
- Iran
- Turkey
- Canada
- Nepal
- Mexico
- Japan

### Applications & enrollment

- **6,262 APPLICATIONS**
- **14.5% ADMITTED (908)**
- **285 ENROLLED**

- **2,897 APPLICATIONS**
- **40% ADMITTED (1,158)**
- **402 ENROLLED**

- **671 APPLICATIONS**
- **25.9% ADMITTED (174)**
- **82 ENROLLED**

### People

- **88 TENURED/TENURE-TRACK FACULTY**
- **115 PART-TIME FACULTY**
- **32 ENDOWED PROFESSORSHIPS**

### Faculty & research

- **$31.6M RESEARCH AWARDS (FY16)**

### Scholarship & fellowship support (FY16)

- **106 ENDORED SCHOLARSHIPS TO 179 students**
- **100 ANNUAL FUND SCHOLARSHIPS TO 146 students**
- **28 UNIVERSITY SCHOLARSHIPS TO 90 students**

### Facilities

- SIX ENGINEERING BUILDINGS AND TWO NEW BUILDINGS PLANNED:
  - Henry A. and Elvira H. Jubel Hall
  - James M. McKelvey, Sr. Hall

### Leadership

- **Aaron F. Bobick**
  - Dean & James M. McKelvey Professor
  - afb@wustl.edu
2016 Top 10 news stories

A new use for insects: biorobotic sensing machines

Using a locust’s sense of smell, a team of engineers is developing new biorobotic sensing systems that could be used in homeland security applications, including bomb and chemical detection.

NSF announces new Science and Technology Center

The National Science Foundation (NSF) has added a newly formed collaboration between Washington University in St. Louis and the University of Pennsylvania to its list of Science and Technology Centers (STCs). The center and its collaborative efforts will be supported by a $23.6 million grant from the NSF.

Washington University invests $25 million in imaging sciences

In a partnership between the School of Engineering & Applied Science and the School of Medicine, Washington University is launching a new initiative to support imaging sciences researchers in their development of new technologies.

Dirty to drinkable

A team of engineers at Washington University in St. Louis has found a way to use graphene oxide sheets to transform dirty water into drinking water, and it could be a global game-changer.

Research suggests new contributor to heart disease

While high blood pressure and artery stiffness are often associated with plaque buildup, new research shows they are not the direct causes.

Nanoparticles present sustainable way to grow food crops

Nanotechnology could help with safer and more abundant food production to meet worldwide demands in the coming decades.

Calcium carbonate: A new weapon in fighting tumors

Avik Som and a team of Washington University researchers are using nanoparticle technology, applied to a drug found in most people’s medicine cabinets, to chemically alter a cancer tumor and stop its growth.

New engineering building to be named for school’s former dean

James M. McKelvey, Sr. Hall will house the Department of Computer Science & Engineering and support Washington University’s data science efforts.

Fighting crime at the intersection of science and social justice

Researchers from Washington University in St. Louis are using science and engineering to fight the heinous crime of sex trafficking.

Second major offered in financial engineering

A new, interdisciplinary academic program will combine courses in math, computer science, engineering and finance for WashU students pursuing a career in financial engineering.

Nanoparticles present sustainable way to grow food crops

Nanotechnology could help with safer and more abundant food production to meet worldwide demands in the coming decades.

Calcium carbonate: A new weapon in fighting tumors

Avik Som and a team of Washington University researchers are using nanoparticle technology, applied to a drug found in most people’s medicine cabinets, to chemically alter a cancer tumor and stop its growth.

New engineering building to be named for school’s former dean

James M. McKelvey, Sr. Hall will house the Department of Computer Science & Engineering and support Washington University’s data science efforts.

Fighting crime at the intersection of science and social justice

Researchers from Washington University in St. Louis are using science and engineering to fight the heinous crime of sex trafficking.

Second major offered in financial engineering

A new, interdisciplinary academic program will combine courses in math, computer science, engineering and finance for WashU students pursuing a career in financial engineering.

Six new faculty join the School of Engineering & Applied Science

Dama D. Agonafer
- Assistant professor in the Department of Mechanical Engineering & Materials Science
- PhD, mechanical science and engineering, University of Illinois at Urbana-Champaign

Alvitta Ottley
- Assistant professor in the Department of Computer Science & Engineering
- PhD, computer science, Tufts University

Kimberly M. Parker
- Assistant professor in the Department of Energy, Environmental & Chemical Engineering
- PhD, environmental engineering & science, Stanford University

Vijay Ramani
- Professor in the Department of Energy, Environmental & Chemical Engineering
- PhD, chemical engineering, University of Connecticut

Patricia Weisensee
- Assistant professor in the Department of Mechanical Engineering & Materials Science
- PhD, in mechanical science and engineering, University of Illinois at Urbana-Champaign

Quing Zhu
- Professor in the Department of Biomedical Engineering
- PhD, bioengineering, University of Pennsylvania
Financial & campaign update

Financial report (FY16)

- **$122,119,000** total gross revenue
- **$114,670,000** total expenses
- **$3,496,000** funds reserved
- **$3,953,000** net results

Campaign (FY16)

- **$150M** engineering campaign target
- **76.28%** target (FY16)
- **$114M** raised (FY16)
- **12.7K** donors

Campaign giving by source

- **Individuals:** $23.2M
- **Alumni:** $70.2M
- **Groups:** $321,899
- **Foundations:** $2.9M
- **Agencies:** $1.5M
- **Parents:** $3.3M
- **Corporations:** $9.2M
- **Honorary Alumni:** $3.8M

Types of campaign support

- **Facilities:** $35.2M
- **Student Support:** $35.1M
- **Annual Fund:** $15.3M
- **Faculty:** $10.9M
- **Academic Programs:** $9.8M
- **Other:** $8.2M

Giving by top cities

- **St. Louis:** $53.1M
- **San Francisco:** $6.6M
- **Chicago:** $4.7M
- **Washington, D.C.:** $4.7M
- **New York area:** $11.6M
- **Los Angeles:** $3.5M
- **Chicago:** $3.4M
- **Miami:** $15.2M
- **Seattle:** $3.4M
- **Boston:** $4.7M

Most popular cities

- **St. Louis**
- **San Francisco**
- **Chicago**
- **Washington, D.C.**
- **Seattle**
- **Boston**
- **New York**

Most popular states

- **Missouri**
- **California**
- **Illinois**
- **Texas**
- **Washington**
- **New York**
- **Texas**
- **California**
- **Illinois**
- **Missouri**

Most popular countries outside the U.S.

- **China**
- **Taiwan**
- **India**
- **South Korea**
- **Netherlands**
- **Malaysia**

Most popular countries

- **China**
- **Taiwan**
- **India**
- **South Korea**
- **Netherlands**
- **Malaysia**

Alumni achievement awardees 2016

- **Anna Apanel**
  Senior Reservoir Field Studies Consultant (ret.)
  ExxonMobil Corp.
- **Alexander Gray**
  Senior Vice President
  Juniper Networks
- **Steven Kramer**
  Vice President
  AECOM
- **David Karandish**
  Former Chief Executive Officer
  Answers Corp.
- **Chris Sims**
  Former Chief Strategy Officer
  Answers Corp.
- **John Zook**
  Vice President of Engineering
  Socrata
- **Ralph Quatrano**
  Former Dean
  Washington University
  School of Engineering & Applied Science

20K ALUMNI

ALUMNI LIVE IN

50 STATES

100 COUNTRIES

8% INTERNATIONAL

MOST POPULAR STATES:

- Missouri
- California
- Illinois
- Texas
- Washington
- New York

MOST POPULAR COUNTRIES OUTSIDE THE U.S.:

- China
- Taiwan
- India
- South Korea
- Netherlands
- Malaysia

National Council

- **Vincent J. Belusko**
- **John Berra**
- **Jerome F. Brasch**
- **Stephen F. Brauer**
- **Charles A. Buescher Jr.**
- **Christopher Chivetta**
- **C. Baker Cunningham**
- **Santanu Das**
- **Carl Deutsch**
- **Arnold Donald**
- **Gaurav Garg**
- **Alexander J. Gray**
- **Sam Gupta**
- **Sunil Hrani**
- **Janet Holloway**
- **Dennis Houston**
- **Donald A. Juble**
- **Dennis Kessler**
- **Milind Kulkarni**
- **Mark J. Levin**
- **Christine Lorenz**
- **Richard P. Mattione**
- **Nancy Pendleton**
- **Mike Perlmutter**
- **Richard E. Pinckert**
- **Stanley Proctor**
- **Richard Roloff**
- **David J. Rossetti**
- **Gregory A. Sullivan**
- **Anthony Thompson**
- **SUSAN MARY WELSH, MD**
- **Gary Wendlandt**
- **Peter Leung-tung Young**
- **Anna Patterson**
- **Nancy Pendleton**
- **Mike Perlmutter**
- **Richard E. Pinckert**
- **Stanley Proctor**
- **Richard Roloff**
- **David J. Rossetti**
- **Gregory A. Sullivan**
- **Anthony Thompson**
- **Susan Mary Welsh, MD**
- **Gary Wendlandt**
- **Peter Leung-tung Young**
95% OF REPORTING GRADUATES SECURED OPPORTUNITIES WITHIN SIX MONTHS OF GRADUATION

73% ENTERED THE WORKFORCE

27% CONTINUED ON TO GRADUATE SCHOOL

15% CONTINUED ON TO MEDICAL SCHOOL

Top companies for recent graduates

- Accenture
- Amazon
- Anheuser-Busch InBev
- Apple
- AT&T
- Bain & Co. Inc.
- Boeing
- Burns & McDonnell Engineering
- Capital One
- Citigroup
- Deloitte Consulting LLP
- Epic
- Goldman Sachs
- Google
- Honeywell International Inc.
- MasterCard International
- Microsoft Corp.
- Square

Starting salary by major

- Biomedical Engineering: $67.7K
- Chemical Engineering: $70.8K
- Computer Engineering: $95K
- Computer Science: $91.2K
- Electrical Engineering: $67.5K
- Mechanical Engineering: $68K
- Systems Science & Engineering: $76.3K

Bachelor of Science reported starting salaries for 2015-2016 graduates.

Front cover: When engineering microbes produce useful chemicals and drugs, the non-genetic, cell-to-cell variations in protein and metabolite concentrations cause large heterogeneity in single-cell performance, which dramatically affects ensemble product titer and yield. Using a product-responsive sensor-selector, Fuzhong Zhang's lab developed a technology termed Population Quality Control (PopQC) to enrich high-performing variants. The image illustrates the spontaneous selection of nongenetic, high-performing variants from an isogenic population. Illustration by Steve Edwards