

### Thinking Ahead

- Case Western Reserve and Cleveland Clinic are working with Microsoft to reimagine anatomy education. Radiology Professor Mark Griswold is leading a team developing a curriculum in which students learn about the body's bones, muscles, organs and systems by viewing 3-D images through the Microsoft HoloLens mixed-reality device.
- Michael Goldberg, assistant professor of design and innovation, launched his Massive Online Open Course, or MOOC, which attracted 100,000 students from 190 countries. The course uses Cleveland as a case study for how cities can grow business when private-sector resources are limited.
- In 2015 the university opened the first three floors of the Larry and Sally Zlotnick Sears think[box] in the Richey Mixon building, an innovation space that will total 50,000 feet when all seven floors are complete.

#### Innovation Starts at CWRU

Over the years, faculty, students and alumni have impacted society through invention and industry.

#### A few notable developments include:



2005: **Charu** 2013: Chris 1897: Herbert Henry 1928: Brothers Kent (CSAS '17), Ramanathan, PhD. Wentz (CWR Dow, PhD, (CSAS, 1888, Kelvin (CSAS '22) and Vincent GRS '24, mechanical **Smith,** along with classmate (GRS '00, '04, biomedical '14) launches engineering) and Ping tech company, Alex Nason and others launch 1977: Frank Rudy engineeriang) founds The Dow Chemical Co. Graphite Oil Products Co. (CIT '50) develops Jia, PhD, (GRS 98, '05, Everykey Nike Air-Sole biomedical engineering) (now The Lubrizol Corp.) technology 1995: Craig Newmark co-found CardioInsight (CWR '75, GRS '77, Technologies, Inc. 1966: Lois Wyse (CLC computer science) '45, FSM '48) co-founds launches website 2007: Alex Yakubovich Cleveland's Wyse Craigslist 1918: Arthur L. Parker (CWR '07), Stan Garber Advertising, the largest (CSAS, 1907) established 2003: Paul Buchheit (CWR (CWR '07) and Oleg advertising agency in Ohio Parker Appliance '98, GRS '98, computer Fridman (CWR '07) establish online ordering Company (now Parker engineering) develops Hannifin Corp.) free email service Gmail system, ONOSYS Ltd.

## Case Western Reserve University's influence in Northeast Ohio

Case Western Reserve is a leading research institution that annually adds \$1 billion to the region's economy. The university employs more than 6,000 faculty and professional staff—making it among Northeast Ohio's top 20 largest employers—and boasts more than 110,000 alumni, more than 35,000 of whom live in the region.

#### In research and technology

# The university's commercialization efforts make a difference in our economy and society. Our researchers annually bring in an average of:

- More than \$400 million in research expenditures
- More than \$4.3 million in licensing revenues
- Nearly 300 active licenses
- More than 200 invention disclosures
- Nearly 100 patents

#### In the community

#### Case Western Reserve plays a major role in Cleveland's evolution and momentum:

- Contributing more than 672,000 hours of volunteer service to the Cleveland community
- Hosting more than 900 community outreach programs each year
- Partnering with 1,000 nonprofits, 95 percent of which are located throughout Cleveland

To learn more about partnering with Case Western Reserve University, contact Corporate Relations at **216.368.6665**, or visit **case.edu/industry**.