The McGowan Institute for Regenerative Medicine has a history of developing and translating innovative technologies that are enhancing Pennsylvania’s economy and helping to grow the number of high-tech, high-paying jobs in the Commonwealth. At McGowan, the continuum of research, clinical assessment, technology transfer, and commercial spin-outs has been successful in addressing critical national health care needs, putting Pennsylvania on the map as a center of excellence in regenerative medicine, and revitalizing the regional economy. Bolstered by the Commonwealth’s continued support, the yield of external support received from Federal agencies and the private sector is **13 to 1**.

**Innovation**

New ideas and technologies help produce high-quality goods and services that keep Pennsylvania competitive in today’s global marketplace. Innovation is spurred by both the private sector and academic institutions. Promising biomedical research conducted at academic institutions is often patented and licensed to private sector entities leading to increased investment, further product development, and economic growth.

**Workforce**

A skilled workforce is a critical component for regional economic growth. Many jobs that once required only a high school degree now require additional training or postsecondary education. Ensuring that Pennsylvania’s workforce has access to these opportunities will prepare the region to compete in the global economy. The McGowan Institute employs an interdisciplinary coalition of faculty, students, trainees, and staff who are working to solve critical health issues.

**Why it matters**

McGowan Institute accomplishments in innovation:
- 1,020 invention disclosures filed
- 967 patents filed in the U.S.
- 1,608 patents filed internationally
- 220 patents issued in the U.S.
- 340 confidential disclosure agreements executed with companies
- $29 million from industry to support regenerative medicine research
- 203 licenses/options completed with outside partners

McGowan Institute’s contributions to Pennsylvania job creation:
- 2,000 jobs including faculty, trainees, and administrators
- 32 spin-out companies formed from technology developed by affiliated faculty members
- 700 total jobs created from McGowan spin-out companies
Investment

The McGowan Institute receives grants and awards for its research from agencies and organizations like the U.S. Department of Defense, National Institutes of Health, the National Science Foundation, and the Department of Veterans Affairs. These research dollars flow through the Pennsylvania economy supporting cutting-edge technologies and therapies in regenerative medicine.

The McGowan Institute for Regenerative Medicine is a national center of expertise in medical research focusing on the development and delivery of regenerative medicine therapies that reestablish tissue and organ function impaired by disease, trauma, or congenital abnormalities. Its core program areas include tissue engineering and biomaterials, cellular therapies, artificial organs and medical devices, and clinical translation. The institute maintains a broad program that ranges from basic research through clinical implementation, and McGowan faculty have been effective in establishing commercial start-up companies based on newly developed technologies and therapies.

The institute’s collaborative approach to regenerative medicine research has led to strategic partnerships with various institutions across Pennsylvania. It is through these partnerships, our drive to push medical boundaries, and our expertise across multiple specialties in medical research that the McGowan Institute has continued to be an economic driver in Pennsylvania.

Why it matters

McGowan Institute’s investment received and generated

- $14 million in grants and awards received each year for research and sponsored programs
- $200+ million of leveraged investment beyond Commonwealth grant funding (13 to 1 ratio)
- $830 million of additional third-party investment in McGowan Institute start-up companies
- $17+ million in direct annual expenditures supporting local businesses