

LIFE SCIENCES

in New York's Capital Region



The heartbeat of New York's life sciences industry is heard loud and strong in the Capital Region. We are not only the "birthplace of innovation" that Thomas Edison established more than a century ago – the region is also home to the legacy of medical equipment manufacturing in "Catheter Valley" during and after World War II. Building on this solid foundation are cutting-edge companies such as **Regeneron Pharmaceuticals**, **Albany Molecular Research Inc.**, **GE Healthcare**, **GE Global Research** and **AngioDynamics**. These companies – and dozens more – benefit from a vast talent pipeline and R&D infrastructure, including **SUNY Polytechnic Institute**, **the University at Albany** and **Rensselaer Polytechnic Institute**. This unique mix of R&D and manufacturing capabilities makes the Capital Region a bench-to-bedside model.



Regeneron Pharmaceuticals

R&D (2018)

- **\$76.9M** in annual NIH awards
- **\$126.7M** university life sciences R&D expenditures
- **284,000 ft²** university R&D space
- **153** drug/biological composition/body treating composition patents with local listed investors awarded (2015-2017)
- **342** pharma industry-funded new clinical trials for drug interventions with local locations (2014-2018)



AngioDynamics

EMPLOYMENT (2018)

- **5,883** jobs in Life Sciences Cluster
 - ▶ **5,675** additional jobs in related R&D in the Physical, Engineering, and Life Sciences industry
- **14th** most Pharmaceutical and Medicine Manufacturing jobs among U.S. metro areas
- **10th** most R&D in the Physical, Engineering, and Life Sciences jobs among U.S. metro areas
- **1st** Highest concentration in Warren County for Medical Equipment and Supplies Manufacturing jobs among US counties (Q3 2018)

TALENT PIPELINE (2018)

- **10** institutions awarding degrees in Biological and Biomedical Sciences
 - ▶ **613** degrees annually awarded
- **19** institutions awarding degrees in Health Professions and Related Programs
 - ▶ **1,917** degrees annually awarded

Major R&D Assets (*10-Year NIH Awards Total)

1. **Albany College of Pharmacy and Health Sciences** (\$9.4M)
2. **Albany Medical Center/College** (\$100.9M)
3. **Biomedical Accelerator and Commercialization Center (BAAC)**
4. **NYS DOH Wadsworth Center** (\$115M)
5. **SUNY Polytechnic Institute** (\$5.2M)
6. **University at Albany UAlbany** (\$87.5M)
7. **Regenerative Research Foundation** (\$13.8M)
8. **Rensselaer Polytechnic Institute** (\$79.4M)
9. **GE Global Research** (\$43.9M)

Medical Equipment and Supply Manufacturers

10. **AngioDynamics (HQ):** minimally invasive medical devices
11. **Nobilium:** dental prosthetic materials and equipment
12. **PISA BioPharm:** sterile injectables and specialized biomedical supplies
13. **Precision Valve and Automation:** automated and manual dispensing and spray coating equipment, pumps, valves, and needle tips
14. **American Bio Medica:** immunoassay test kits
15. **Integrated Liner Technologies:** caps for vials, pharmaceutical bottles and test tubes
16. **Ultradian Diagnostics:** wearable biosensors
17. **Vital Vio:** LED disinfectant lighting
18. **Rejuveness:** scar removal and scar treatment products
19. **Specialty Silicone Products:** platinum-cured silicones
20. **AngioDynamics (Queensbury MFG Facility):** minimally invasive medical devices
21. **Medline Industries:** minimally invasive medical devices
22. **Becton Dickson:** catheters and ports
23. **Delcath Systems:** chemotherapy systems
24. **Praxis Technology:** titanium implantable devices

Pharmaceutical Manufacturing

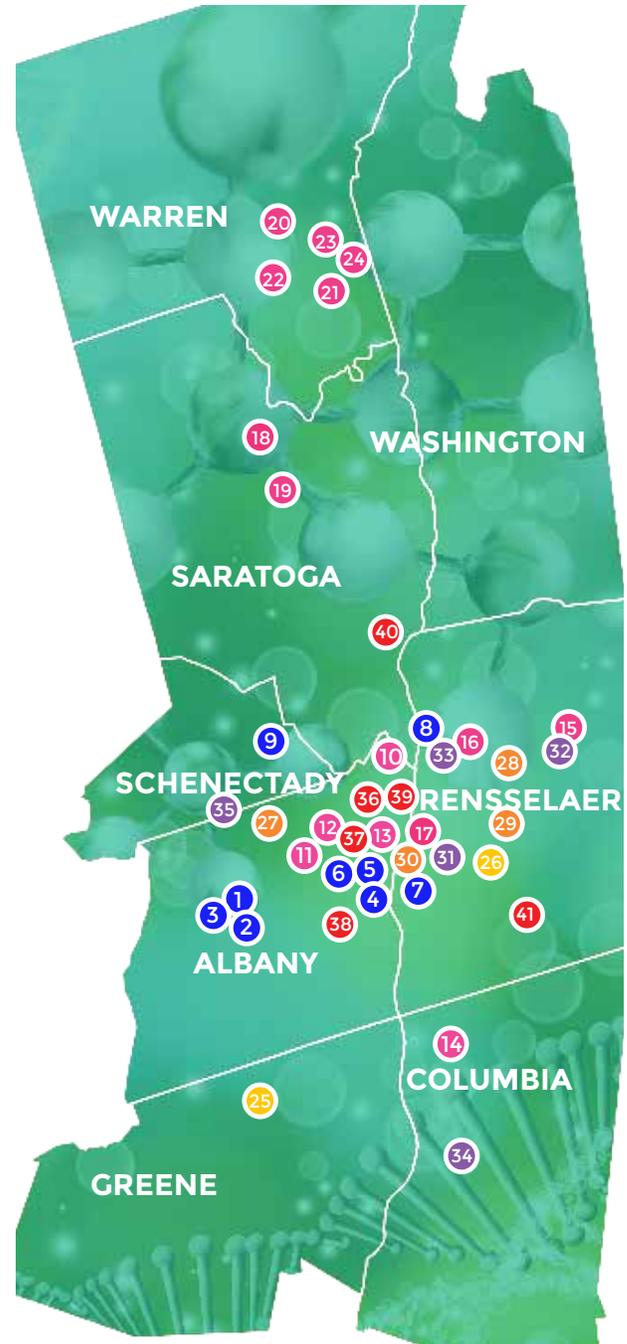
25. **Glaxo SmithKline**
26. **Regeneron Pharmaceuticals**

Contract Research Organizations

27. **AMRI**
28. **ConSynance Therapeutics**
29. **Pulkomine**
30. **Vascular Vision Pharmaceuticals**

Clinical Testing Support Services

31. **VEC Technologies:** cultured vascular endothelial cells and cell culture products
32. **Taconic Biosciences:** commercial animal model vendor
33. **Integrated Tissue Dynamics (INTIDYN):** complex tissue evaluations
34. **Hudson Valley Lyomac:** Manufacturers freeze driers (#lyophilization equipment)
35. **Institute for Clinical Pharmacodynamics:** antimicrobial risk mitigation



Imaging and Software

36. **Philips Medical Systems:** MRI components
37. **Glauconix Biosciences:** ophthalmic ex-vivo dynamic 3D human tissue models
38. **ILUM Health Solutions:** enterprise-wide disease management tools and services
39. **Virtual Phantoms:** radiation dose modeling
40. **Kitware:** medical visualization and data processing software developer
41. **GE Healthcare:** X-ray detectors

*FY2010-FY2019