## Innovation at Work

### Vermont

<table>
<thead>
<tr>
<th>Total Employment Supported by the Biopharmaceutical Sector</th>
<th>Total Direct and Indirect Economic Output of the Biopharmaceutical Sector</th>
<th>Local Perspective: Richmond, VT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7,331</strong></td>
<td><strong>$1.9 billion</strong></td>
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</tbody>
</table>

**Local Perspective: Peru, VT**

"We encourage members of Congress to support scientific research because there are more than 7000 rare diseases. The information gained from such research will benefit all people within the rare disease community - patients, families and caregivers."

*Jack and Marybeth Bailey, parents of Shane, living with cardiofaciocutaneous syndrome*

**Total NIH Award Funding (FY17)**

<table>
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<th>Local Perspective:</th>
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<tbody>
<tr>
<td>Cindy Chornyak, Arthritis Foundation advocate</td>
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<tr>
<td><strong>$49 million</strong></td>
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**"I support medical research because I would much rather go for a walk with my dog than to go to a doctor’s appointment."**

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### Research in the Green Mountain State

**University of Vermont, Burlington, VT**

Total knee arthroplasty often succeeds in reducing joint pain but fails to improve motor function. National Institutes of Health (NIH)-funded researchers at the University of Vermont are investigating the effect of surgery on muscular function in an effort to improve motor function outcomes.

**Fanny Island Campus Medical Building, Colchester VT**

Many cellular and structural changes occur with increasing age and related health issues. Researchers are seeking to determine whether they can safely and effectively deliver a component of fatty tissue know as autologous cellular stromal vascular fraction (cSVF) to improve quality of life and functional health.

**Middlebury College, Middlebury, VT**

As the use of genomic testing increases, there is a growing need to ensure physicians and patients can accurately interpret results. NIH-funded Middlebury College researchers are working to develop techniques to assess and improve genomic literacy.

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Sources: National Institutes of Health (NIH), Pharmaceutical Research and Manufacturers of America (PhRMA), Centers for Disease Control and Prevention (CDC), A Research!America Survey of U.S. Adults conducted in partnership with Zogby Analytics in January 2017, Middlebury College, ClinicalTrials.gov.