# Contents

Translational Research in Life Sciences ............................................. 1

## Part I Preclinical Disease Models as a Platform for Drug Discovery

Idiopathic Lung Fibrosis Model for Drug Discovery ..................... 13

Aseptic Peritonitis Model for Drug Discovery (As Therapy) ......... 33

Aseptic Peritonitis Model for Drug Discovery (for Prophylaxis) ....... 51

Dissecting Key Cellular Players Regulating Pathophysiology of Acute and Chronic Allergic Asthma ............................. 77

Dissecting Asthma Pathogenesis Through Study of Patterns of Cellular Traffic Indicative of Molecular Switches Operative in Inflammation ......................................................... 89

*Drosophila* Stem Cell Niches—Studies in Developmental Biology .............. 119

## Part II Novel Antibodies as a Replacement for Antibiotics

Camelid Antibody-Based Therapeutics for Animal and Human Health ................................................................. 131

Development of a Novel Format of Stable Single Chain Antibodies Against *Staphylococcus aureus* and Allergen-Specific IgE in Allergic Asthma ................................................................. 153

Development of a Novel Format of Stable Single-Chain Antibodies Against Alkaline Phosphatase as Therapeutic Molecules ................................................................. 169

Development of a Novel Format of Stable Single-Chain Antibodies Against Alpha Amylase as Therapeutic Molecules ................................................................. 183

Figures of Quantifiable Data in Support of Achieved Goals ......... 187
<table>
<thead>
<tr>
<th>Part III</th>
<th>Functional Food and Nutraceuticals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subchapter-A</td>
<td>197</td>
</tr>
<tr>
<td>Subchapter-B</td>
<td>205</td>
</tr>
<tr>
<td>Subchapter-C: Translational Outcome Research with Date Extracts as Functional Food in Diseases Involving Oxi-Flammatory Pathways</td>
<td>233</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part IV</th>
<th>Bio-Green-Technology as a Multi-disciplinary Interface Amongst the Life Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nanomedicine: Nanoparticles and Its Relevance in Drug Discovery vis-a-vis Biomedicine</td>
<td>265</td>
</tr>
</tbody>
</table>
Perspectives in Translational Research in Life Sciences and Biomedicine
Translational Outcomes Research in Life Sciences and Translational Medicine, Volume 1
Banerjee, E.R.
2016, XII, 270 p. 169 illus., 148 illus. in color., Hardcover
ISBN: 978-981-10-0988-4