## Contents

**Preface** .......................................................... v
**Contributors** ................................................... ix

1. Screening for Ligands of C-Type Lectin-Like Receptors .......................... 1
   *Elwira Pyż and Gordon D. Brown*

2. Yeast Surface Display of Lamprey Variable Lymphocyte Receptors ............... 21
   *Gang Xu, Satoshi Tasumi, and Zeev Pancer*

3. Identification of Scavenger Receptor Ligands .................................... 35
   *Claudine Neyen, Annette Pluddemann, and Siamon Gordon*

4. Construction, Expression, and Purification of Chimeric Protein Reagents Based on Immunoglobulin Fc Regions ........................................................ 51
   *John P. Cannon, Marci O'Driscoll, and Gary W. Litman*

5. Innate Immune Receptors for Nucleic Acids ...................................... 69
   *Andrea Stutz, Damien Bertheloot, and Eicke Latz*

6. Analysis of Receptor–Ligand Interactions by Surface Plasmon Resonance .......... 83
   *Kimiko Kuroki and Katsumi Maenaka*

7. Cell-Based Reporter Assay to Analyze Activation of Nod1 and Nod2 ........... 107
   *Birte Zurek, Harald Bielig, and Thomas A. Kufer*

8. Determining FcεRI Diffusional Dynamics via Single Quantum Dot Tracking ................ 121
   *Diane S. Lidke, Shalini T. Low-Nam, Patrick J. Cutler, and Keith A. Lidke*

9. Ratiometric Analysis of Subcellular Recruitment of Fc Receptors During Phagocytosis ......................................................... 133
   *Patricia Mero and James W.D. Booth*

10. Assessment of the Recycling of the Membrane-Bound Chemokine, CX3CL1 .......................................................... 143
    *Sajedabanu Patel, Ilya Mukovozov, and Lisa A. Robinson*

11. Measuring Immune Receptor Mobility by Fluorescence Recovery After Photobleaching ....................................................... 155
    *Kristen Silver and Rene E. Harrison*

12. Probing the Plasma Membrane Structure of Immune Cells Through the Analysis of Membrane Sheets by Electron Microscopy ......................... 169
    *Björn F. Lillemeier and Mark M. Davis*

13. Rapamycin-Based Inducible Translocation Systems for Studying Phagocytosis .............................................................. 183
    *Michal Bohdanowicz and Gregory D. Fairn*

14. Micropatterned Ligand Arrays to Study Spatial Regulation in Fc Receptor Signaling .................................................... 195
    *Alexis J. Torres, David Holowka, and Barbara A. Baird*
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>CELLISA: Reporter Cell-Based Immunization and Screening of Hybridomas Specific for Cell Surface Antigens</td>
<td>Peter Chen, Aruz Mesci, and James R. Carlyle</td>
<td>209</td>
</tr>
<tr>
<td>16</td>
<td>Use of Colloidal Silica-Beads for the Isolation of Cell-Surface Proteins for Mass Spectrometry-Based Proteomics</td>
<td>Yunee Kim, Sarah Elschenbroich, Parveen Sharma, Lusia Sepiaashvili, Anthony O. Gramolini, and Thomas Kislinger</td>
<td>227</td>
</tr>
<tr>
<td>17</td>
<td>Transfection-Based Genomic Readout for Identifying Rare Transcriptional Splice Variants</td>
<td>Larry J. Dishaw, M. Gail Mueller, Robert N. Haire, and Gary W. Litman</td>
<td>243</td>
</tr>
<tr>
<td>18</td>
<td>Characterizing Somatic Hypermutation and Gene Conversion in the Chicken DT40 Cell System</td>
<td>Nagarama Kothapalli and Sebastian D. Fugmann</td>
<td>255</td>
</tr>
<tr>
<td>19</td>
<td>Characterizing Immune Receptors from New Genome Sequences</td>
<td>Katherine M. Buckley and Jonathan P. Rast</td>
<td>273</td>
</tr>
<tr>
<td></td>
<td>Index</td>
<td></td>
<td>299</td>
</tr>
</tbody>
</table>
Immune Receptors
Methods and Protocols
Rast, J.P.; Booth, J.W.D. (Eds.)
2011, XI, 301 p. 64 illus., Hardcover
A product of Humana Press