1 Computational protein design; David Baker

2 Protein structure prediction; Demmis Hassabis & John Jumber

3 Development of a method for genome editing; Emmanuelle Charpentier & Jeniffer Dunda

4 The directed evolution of enzymes; Frances Arnold

5 The phage display of peptides and antibodies; George Smith & Gregory Winter

6 Developing cryo-electron microscopy for the high-resolution structure determination of biomolecules in solution; Jacques Dubochet, Joachim Frank & Richard Henderson

7 Studies of G-protein-coupled receptors Robert Lefkowitz & Brian Kobilka

8 The development of super-resolved fluorescence microscopy; Eric Betzig, Stefan W. Hell and William E. Moerner

9 The discovery and development of the green fluorescent protein, GFP; Osamu Shimomura, Martin Chalfie and Roger Y. Tsien

10 Discovery of ubiquitin-mediated protein degradation; Aaron Ciechanover, Avram Hershko and Irwin Rose

11 Discoveries concerning channels in cell membranes; Peter Agre

12 Structural and mechanistic studies of ion channels; Roderick MacKinnon