

## **Production of stable membrane proteins for the development of Biologics**

**Stephanie Duclos<sup>1</sup>, Nicolas Bertheleme<sup>1</sup>, Rahul Yadav<sup>1</sup>, Richard Hitchman<sup>1</sup>,  
Shweta Singh<sup>1</sup>, John Barker<sup>1</sup>, Dirk Ullmann<sup>2</sup>**

**<sup>1</sup>Evotec (UK) Ltd, <sup>2</sup>Evotec AG**

The delivery of membrane proteins in a sufficient amount and suitable quality is considered to be the bottleneck of membrane protein-based drug discovery. To overcome the challenge of expressing and purifying stable and functional membrane proteins such as transporters, receptor or channels, Evotec offers a robust membrane protein platform, complemented with expertise in biophysics (*e.g.* X-Ray crystallography) and bioassays (Ligand-binding assay). Our comprehensive workflow includes construct design, recombinant expression in different expression systems, and a modular approach to construct triage and detergent screening. This pipeline has recently been utilized for the identification of a stable G Protein-coupled receptor (GPCR) that maintained the integrity of its epitope and could be recognised by antibody binding in a cell-based assay.