

**COS symposium 2022**  
**Building Functionality - The Relevance of Form Across Biological Scales**

How structure, shape & architecture guide functionality is a fundamental open question in biology that expands through all biological scales: From the structure of the DNA to the morphology of organs. In this symposium, we aim to highlight common and differential features emerging from the molecular, cellular, tissue and organ architecture in the animal and plant kingdoms. We will also discuss how to engineer biological models to generate novel functions.

**Thursday - 13.10.2022**

<b>COS symposium</b>	<b>Main lecture hall, INF230</b>
13:00 - 14:00	Registration for the COS symposium
14.00 - 14.15	Welcome note
14.15 - 15:45	Session 1: Architecture of cells & tissues  Julie Gray – University of Sheffield <i>Stomata: Form and function of plant pores</i>  Yohanns Bellaïche – Institut Curie <i>Regulation of epithelial tissue morphogenesis</i>
15:45 - 17:30	Coffee break & Poster session
17:30 - 18:30	Keynote – Open lecture  Manu Prakash – Stanford University <b><i>Curiosity-Driven Science</i></b> <i>From algorithmic self-assembly of biological forms to frugal scientific instruments for global education &amp; health</i>
19.30 - open end	Speaker's dinner – Bodega Don Jamón

**Friday - 14.10.2022**

9:00 - 10:30	Session 2: Organization of molecules and organelles  Edith Heard – EMBL <i>Epigenetic mechanisms in Development and Disease: insights from the X chromosome</i>  Mónica Bettencourt-Dias – Gulbenkian Institute <i>Centrioles in development, evolution and disease: tiny organelles, multiple and critical functions</i>
10:30 - 11:00	Coffee break
11:00 - 12:30	Session 3: Cellular and tissue mechanics  Verena Ruprecht – CRG <i>Morphodynamic cell and tissue plasticity in development</i>  Gáspár Jékely – University of Exeter <i>Organismic biology in Platynereis: linking genes, brains and bodies to the environment</i>
12:30 - 14:00	Lunch
14:00 - 15:30	Session 4: Engineering biological systems  Kerstin Goeprich – MPI Medical Research <i>Synthetic cells: Building functionality with DNA nanotechnology</i>  Linnea Hesse – Freiburg University <i>Taking a looking into living material systems: how plants can inspire technology</i>
15:30 - 16:00	Coffee break
16:00 – 16:30	Schmeil Award Ceremony
16:30 - 18:00	Session 5: Organismal form  Toshihiko Fujimori – NIBB <i>TBA</i>  Edwige Moyroud – University of Cambridge <i>One-size-fits-all? Understanding how flowering plants build communication devices on their petals</i>
18.00 - open end	COS Autumn party

