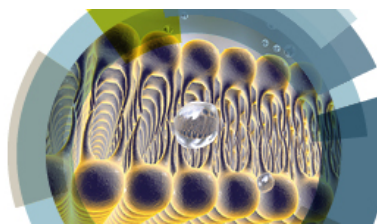


Artificial Water Channels



Faraday Discussion

25–27 June 2018
Glasgow, UK

Monday 25 June

11:00	Registration, Tea and Coffee	
12:00	Lunch	
12:45	Welcome and Introductions Mihail Barboiu, <i>Chair of Scientific Committee</i>	
12:55	Outline of Discussion Format Suzanne Howson and Sarah Whitbread, <i>Royal Society of Chemistry Publishing Editors</i>	
13:00	Introductory Lecture (Session Chair: Manish Kumar) Peter Pohl <i>Johannes Kepler University of Linz</i>	
	Session 1 Structure and function of natural proteins for water transport (Session Chair: Manish Kumar)	
14:00	Protein-protein interactions in AQP regulation – biophysical characterization of AQP0- CaM and AQP2-LIP5 complex formation Susanna Törnroth-Horsefield <i>Lund University</i>	Paper 19498
14:05	Positively charged residues at the channel mouth boost single-file water flow Andreas Horner <i>Johannes Kepler University Linz</i>	Paper 19559
14:10	Hyperpolarised NMR to Follow Water Proton Transport through Membrane Channels via Exchange with Biomolecules Aude Sadet <i>University of Bucharest</i>	Paper 19517
14:15	Discussion	
15:30	Afternoon tea	
16:00	Lightning presentations (by invitation of the scientific committee)	
16:30	Poster Session and Wine Reception	

Tuesday 26 June

	Session 2 Biomimetic water channels (Session Chair: Philip Gale)	
09:00	G4-quartet hydrogels from 50-hydrazinoguanosine for the non-covalent and covalent remediation of contaminants from water Jeffrey Davis <i>University of Maryland</i>	Paper 19494
09:05	Imidazole derivatives as artificial water channel building-blocks: structural design influence on water permeability Yves-Marie Legrand <i>CNRS</i>	Paper 19505
09:10	Water permeation across artificial I-quartet membrane channels: from structure to disorder Samuel Murail <i>MTi (Molécules Thérapeutiques in silico), INSERM UMR-S973, University Paris Diderot</i>	Paper 19678

09:15	Discussion	
10:30	Morning Tea	
11:00	A synthetic channel that efficiently inserts into mammalian cell membranes and destroys cancer cells Jun Li Hou <i>Fudan University, Shanghai</i>	Paper 19495
11:05	Parameterization and atomistic simulations of 2 biomimetic membranes Harish Vashisth <i>University of New Hampshire</i>	Paper 19591
11:10	Creating cross-linked lamellar block copolymer supporting layers for biomimetic membranes Robert Hickey <i>Pennsylvania State University</i>	Paper 19629
11:15	Unique selectivity trends of highly permeable PAP[5] water channel membranes Woochul Song <i>Pennsylvania State University</i>	Paper 19581
11:15	Discussion	
13:00	Lunch	
	Session 3 The modelling and enhancement of water hydrodynamics (Session Chair: Marc Baaden)	
14:30	Water and hydrophobic gates in ion channels and nanopores Mark Sansom <i>University of Oxford</i>	Paper 19499
14:35	Driven water/ion transport through narrow nanopores: a molecular dynamics Perspective Rob Coalson <i>University of Pittsburgh</i>	Paper 19492
14:40	Electric field mediated separation of water-ethanol mixture in carbon-nanotubes integrated to nanoporous graphene membrane Manash Borthakur <i>Indian Institute of Technology Guwahati</i>	Paper 19545
14:45	Discussion	
16:00	Afternoon Tea	
16:30	Poster Session	
18:30	Pre-Dinner Drinks	
19:00	Conference Dinner	

Wednesday 27 June

	Session 4 Applications to water transport systems (Session Chair: Bruce Hinds)	
09:00	From channel proteins to industrial biomimetic membrane technology Claus Hélix-Nielsen <i>Aquaporin</i>	Paper 19493
09:05	Carboxyl-functionalized nanochannels based on block copolymer hierarchical structures Suzana Nunes <i>KAUST</i>	Paper 19537
09:10	Localization of transmembrane multiblock amphiphilic molecules in phase-separated vesicles Kinbara Kazushi <i>Tokyo Institute of Technology</i>	Paper 19662
09:15	Discussion	
10:30	Morning Tea	
11:00	2D Graphene Oxide Channel for Water Transport Baoxia Mi <i>University of California, Berkeley</i>	Paper 19497
11:05	Molecular dynamics simulations of carbon nanotube porins in lipid bilayers Gerhard Hummer <i>Max Planck Institute of Biophysics</i>	Paper 19496
11:10	Impact of PEG additives and pore rim functionalization on water transport through sub-1-nm carbon nanotube porins Aleksandr Noy <i>Lawrence Livermore National Laboratory</i>	Paper 19506
11:15	Selectivity and polarization in water channel membranes: lessons learned from polymeric membranes and CNTs Viatcheslav Freger <i>Technion - Israel Institute of Technology</i>	Paper 19692
11:20	Discussion	
13:00	Concluding Remarks Lecture (Session Chair: Mihail Barboiu) Bing Gong <i>University of Buffalo</i>	
13:40	Acknowledgements	
13:45	Close of meeting and Lunch	

Presenting authors are indicated in the programme by an underline. The affiliation is for the presenting author. If the presenting author of your paper has changed since abstract selection please email events@rsc.org. Please note that this is a draft programme and timings may change.