

# Release of chemical transmitters from cell bodies and dendrites of nerve cells

Monday 19 – Tuesday 20 January 2015

Organised by Professor John Nicholls FRS and Professor Francisco F. De-Miguel

THE  
ROYAL  
SOCIETY

DAY 1				DAY 2			
SESSION 1: Somatic exocytosis and its functions in the nervous system Chair: John Nicholls FRS		SESSION 2: Monoamine extrasynaptic exocytosis Chair: Irmgard Dietzel		SESSION 3: Transmitter release from different cell types Chair: Kjell Fuxe		SESSION 4: Modulation of neuronal function Chair: Elaine Del-Bel	
09:00	Welcome by Julie Maxton & John Nicholls FRS						
09:05	<b>John Nicholls FRS</b> Introduction to extrasynaptic release of transmitters	13:30	<b>Elio Raviola</b> Extrasynaptic release of GABA and dopamine by retinal dopaminergic neurones	09:00	<b>Gerhard Dahl</b> ATP release through pannexon channels	13:30	<b>Srdjan Antic</b> Extrasynaptic glutamatergic receptors and dendritic spikes
09:35	<b>Francisco F. De-Miguel</b> Serotonin exocytosis from the neuronal cell body			09:30			
10:05	<b>Paolo Calabresi</b> Striatal synaptic plasticity in experimental models of Parkinson's disease	14:15	<b>Margaret Rice</b> Somatic release of dopamine	09:45	<b>Elaine Del Bel</b> Co-transmission in the Nitric Oxide system in L-DOPA induced dyskinesia	14:15	<b>Irmgard Dietzel</b> Release from glial cells
10:35	Discussion	14:45	Discussion	10:15	Discussion	14:45	Discussion
10:45	Coffee	15:00	Tea	10:30	Coffee	15:00	Tea
11:00	<b>Mike Ludwig</b> Dendritic oxytocin and vasopressin release	15:30	<b>Sudipta Maiti</b> Serotonin somatic release in mammals	11:00	<b>Zhuan Zhou</b> Regulation mechanism of quantal norepinephrine release from somata of Locus Coeruleus slice neurons	15:30	<b>Eric Newman</b> Glial Cell Regulation of Neuronal Activity and Blood Flow in the Retina by Release of Gliotransmitters
11:30	Discussion	16:00	Discussion	11:30	Discussion	16:00	Discussion
11:45	<b>U J McMahan</b> Structural basis of neurotransmitter exocytosis at the neuromuscular junction at nanometer spatial resolution	16:15	<b>Walter Stühmer</b> Exocytosis from chromaffin cells	11:45	<b>Kjell Fuxe</b> <i>On the role of transmitter diffusion and flow versus extracellular vesicles in volume transmission in the brain neural-glia networks with aspects on the relevance of the heteroreceptor complexes for signal integration</i>	16:15	<b>Summary of discussions and closing remarks</b> John Nicholls
12:15	Discussion	16:45	Discussion	12:15	Discussion		
12:30	LUNCH	17:00	CLOSE	12:30	LUNCH	17:00	CLOSE

Draft programme – correct as of 22/12/2014 – subject to change