The neural basis of social behaviour in humans and non-human primates

Social skills require specific cognitive and emotional competences. Individuals with High Functioning Autism (HFA) cannot engage in social interactions despite preserved cognitive abilities. Recently, it has been suggested that oxytocin, a hormone known to promote affiliation and mother-infant bonds, may be implicated in the social deficit of HFA. We investigated the effects of intranasal oxytocin administration on the social behaviour of HFA patients and we found that after oxytocin inhalation, patients exhibited stronger social interactions and reported enhanced feelings of trust and preference. In order to understand the molecular events triggered by oxytocin in the brain we performed several experiments in humans and non-human primates by looking at the effects of oxytocin on 5-HT1A pathway. The results show that oxytocin increases serotonin neurotransmission.