



## FENS Forum 2010 - Amsterdam

- Posters: to be on display from 8:00 to 13:15 in the morning and from 13:30 to 18:45 in the afternoon. Poster sessions run from 09:30 to 13:15 in the morning and from 13:30 to 17:30 in the afternoon. A one hour time block is dedicated to discussion with the authors (authors should be in attendance at their posters as from the time indicated.)
  - For other sessions, time indicates the beginning and end of the sessions.
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**First author** Runesson, Johan (poster)

Poster board B90 - Mon 05/07/2010, 13:30 - Hall 1  
Session 104 - Neurotransmitters & signaling molecules 2  
Abstract n° 104.19  
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**Title** Receptor ligands to delineate the galaninergic system

**Text** The galanin family currently consists of four members, namely galanin, galanin-message-associated peptide (GMAP), galanin-like peptide (GALP) and alarin. The galanin peptide family and its three receptors have with compelling evidence been implicated in a variety of human disorders. The co-localization with other neuromodulators and the distinct up-regulation during and after pathological disturbances has drawn attention to this neuropeptide family. Here we present data on receptor binding and preliminary data in functional response for several novel galanin receptor selective peptides, including a comparison with the published M1145 peptide. The design strategy with a N-terminal extension of galanin(2-13) in M1145 peptide, prevailed new insights in the assembly of novel subtype specific ligands for the galanin receptor family. Modification of the M1145 sequence led to the design of M1162, with an improved GalR2 selectivity. Furthermore, with a new design strategy, the peptide M1154 was produced, which retains high affinity binding to GalR1 and GalR2 although it has no detectable binding to GalR3. In conclusion, we have succeeded in the production of a new generation of subtype selective galanin ligands that raise the possibility to delineate the galanin system and determine if the galaninergic system is a putative drug target.

**Theme** B - Excitability, synaptic transmission, network functions  
Neurotransmitters and signaling molecules - Opiates and other neuropeptides

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