What are the implications of such heterodimerization in GPCRs especially keeping in mind their role as major drug targets? The prospect of ligand-induced heterodimerization can have great implications if it turns out to be a general phenomenon in GPCR functioning. There would be a plethora of possible GPCR heterodimers opening new avenues for therapeutics. This would also offer an attractive mechanism for increasing the diversity of cellular responses to extracellular signals or stimuli. Unravelling the functional significance of these protein–protein interactions poses a challenging task.

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Random selection

Using a molten sodium facility to simulate generation of Earth's magnetic field

'Detection of a Flow Induced Magnetic Field Eigenmode in the Riga Dynamo Facility'
Agris Gailitis, Olgerts Lielausis, Sergej Dement'ev, Ernests Platacis, Arnis Cifersons, Gunter Gerbeth, Thomas Gundrum, Frank Stefani, Michael Christen, Heiko Hanel and Gotthard Will
Phys. Rev. Lett., 2000, **84**, 4365.

The Earth's magnetic field is believed to be getting continuously generated by the electric currents in the dynamic molten iron core of the Earth and the origin of this field is attributed to a small field seeded within, to begin with. An amplification of this field is expected to take place until one reaches an equilibrium situation. This theoretical concept has been confirmed experimentally in the report cited above.

The Riga Dynamo Facility has been used by researchers at the Latvian University, Riga and Rossendorf Research Centre at Rossendorf, Dresden to demonstrate predictions of the fluid dynamo theory of the Earth. The Riga Facility is one of several liquid sodium facilities set up around the world to study various aspects of molten sodium including its hydromagnetism. Details of the facility and results obtained using this facility are given in an article 'Magnetic field self-excitation in the Riga dynamo experiment' by Agris Gailitis, Olgerts Lielausis, Ernests Platacis and Gunter Gerbeth, Frank Stefani at the website http:/www.fz-rossendorf.de/FWS/FWSH/Stefani/iutam.html.

In the *Physical Review Letter* cited here, details are given of how the researchers applied a seed field externally to a large (2M3) container containing liquid sodium and observed 'an oscillating magnetic field (that) began to grow (as the liquid was stirred) and was maintained even with the seed field turned off'. Thereby, they 'have finally created a magnetic field the same way the Earth does, providing clear confirmation of the theory'.