

# **GLYCOCONJUGATES ON A SOLID-SUPPORT**

**The Bioorganic Chemistry Group  
Department of Chemistry  
University of Turku**

# The group

- PI: Harri Lönnberg
- Post doctoral scientists: Satu Mikkola, Mikko Ora, Petri Heinonen, Erkki Nurminen, Esa Mäki, Attila Jancso
- Ph D students: Tuomas Karskela, Johanna Katajisto, Ulla Kaukinen, Anu Kiviniemi, Niangoran Koissi, Kaisa Ketomäki, Marika Leppänen, Tuomas Lönnberg, Kati Mattila, Teija Niittymäki, Päivi Poijärvi, Satu Salomäki, Pasi Virta, Noora Virtanen, Qi Wang, Zhibo Zhang

# Research interests

- Kinetics and mechanisms of the cleavage of RNA (including the 5'-*cap* structure)
- Chemically reactive antisense oligonucleotides and their cellular uptake
- Solid-supported synthesis of oligomeric bioconjugates (including glycoconjugates of oligonucleotides and peptides)
- Bioaffinity-based microarrays
- DNA base modifications
- Reactions and enrichment of phosphopeptides

# Facilities

- The group is working in Arcanum building (Dept Chem) and in BioCity building

Equipped with:

Oligonucleotide and peptide synthesizers

HPLC ESI-MS/MS, Maldi-MS

400, 500, 600 MHz NMR

Several HPLC systems

Capillary electrophoresis

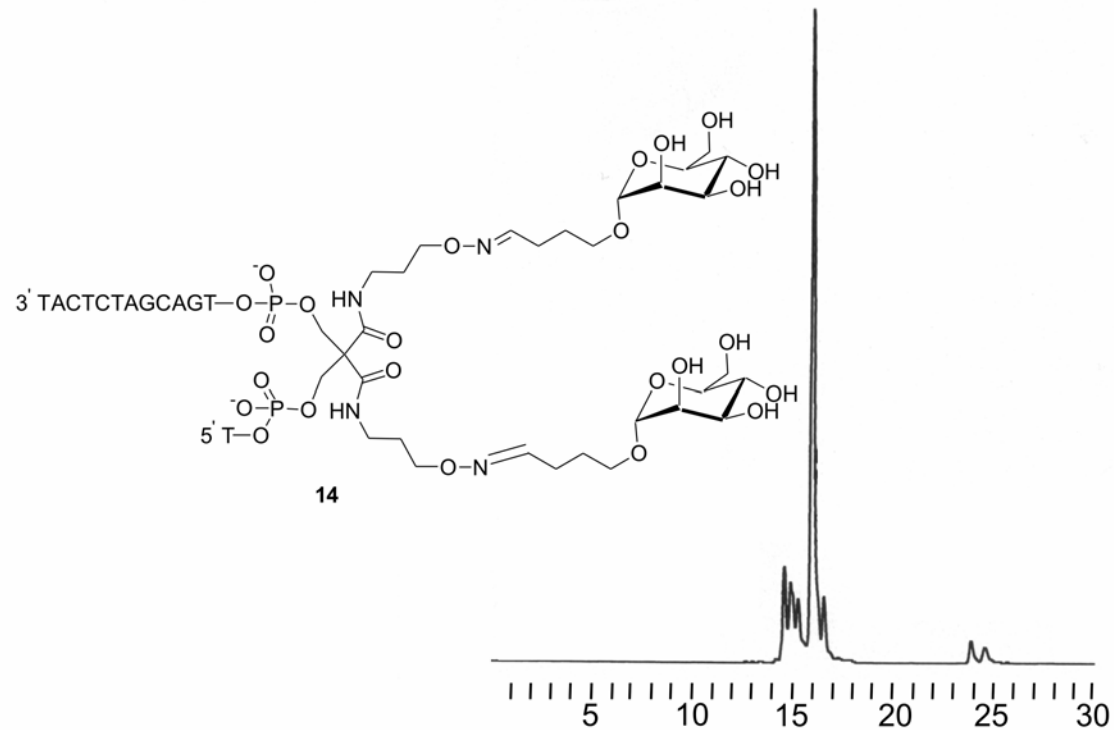
IR, UV, Fluorescence

Elemental analysis

# A long time ago

- Kinetics and mechanisms for the hydrolysis of furanosides
- Metal ion complexing of furanosides
- Epimerization and acetolysis of pyranosides

# Nowadays oligonucleotide glycoconjugates



# and peptide glycoclusters

