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Take it personal! Genetic differences in G protein-coupled receptors as studied with label-free technology

Hillger, J.M.

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Cover Page



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Take it personal!

Genetic differences in G protein-coupled receptors as studied with label-free technology

by Julia Maria Hillger

The research described in this thesis was performed at the Division of Medicinal Chemistry of the Leiden Academic Centre for Drug Research, Leiden University (Leiden, The Netherlands).

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Take it personal!

Genetic differences in G protein-coupled receptors as studied with label-free technology

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Promotor: Prof. dr. A.P. IJzerman

Co-Promotor: Dr. L.H. Heitman

Promotiecommissie: Prof. dr. Hubertus Irth (Chair, Leiden University)
Prof. dr. Joke Bouwstra (Secretary, Leiden University)
Prof. dr. Evi Kostenis (University Bonn, Germany)
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About the title and cover pages

The title is a word play on the common statement “don’t take it personal”. While this saying may be good advice in many cases, there are distinct advantages to “take” medication personal. Genetic differences between individuals can affect both diseases and drug action. Therefore much research effort is focused on making medicine personalized, to tailor it better to the individual patient or situation, to increase beneficial effects and decrease side-effects.

The cover artwork was inspired by a quote from Jim Watson, the co-discoverer of DNA’s double helix structure, who told *Time* magazine in 1989: " We used to think our fate was in our stars. Now we know, in large measure, our fate is in our genes." (Quoted in *Time*, “The Gene Hunt”, by Leon Jaroff, March 20, 1989). The art on the cover was made from actual experimental xCELLigence data generated during this thesis while investigating the influence of genetic differences on G protein-coupled receptors. In the decorations on the edges, the xCELLigence data dissolves into a double helix as a further reference to the DNA that underlies the data itself. The distribution of the stars resembles the distribution of cell clusters, similar to how the lymphoblastoid cell lines, the cellular model system used throughout this thesis, look like under a microscope when grown on xCELLigence plates. The cover artwork also reminds of the season in which the defense of this thesis is held.

The artwork on the chapter title pages is an abstract representation of both DNA and the strings of golden electrodes embedded in xCELLigence plates.

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