



Publications & Conference Contributions

2009

Bio-equivalence Following Peristaltic & Nanodroplet Cell Dispensing: Lessons from Side-by-side Testing with Cell Lines and Human Promaries

Moermans M, Willson M, Bols L, VerDonck K & Keyesen J., SBS 2009, Lille, France, 2009 (Poster)

2008

Functional characterization of three G protein-coupled receptors for pigment dispersing factors in caenorhabditis elegans

Tom Janssen, Steven J. Husson, Marleen Lindemans, Inge Mertens, Suzanne Rademakers, Kris Ver Donck, Johan Geysen, Gert Jansen, and Liliane Schoofs Biology, K.U.Leuven, Leuven 3000

Papers In Press, published online ahead of print April 4, 2008

J. Biol. Chem, 10.1074/jbc.M709060200

Submitted on November 5, 2007, Revised on April 2, 2008, Accepted on April 4, 2008

Brightfield Image Analysis as a Label-free Adjunct to Fluorescent High Content Screening Assays for Improved Assay Performance & Data Quality

Kris Ver Donck, Marc Moeremans, Yves Willems and Johan Geysen

Poster presentation at SBS, April 7-9, 2008, St.Louis MO, USA

Brightfield as an Adjunct to Fluorescence High Content Screening for Improved Assay Performance & Data Quality

Bill Staffopoulos

Oral Presentation at the High Content Analysis Conference, January 14-17, 2008, San Francisco, USA

2007

New Developments in HCS Screening Related to Brightfield, Automated User Defined Focus Points and Unique Data Mining Tools for Increased Data Quality and Assessment

Kris Ver Donck

Oral presentation at the High Content Analysis Europe Conference, September 24-26, 2007, Prague

Towards High Speed Image Analysis tools for leaf rosette, leaf cells and plant cells in culture

Kris Ver Donck

Workshop on Growth Phenotyping and Imaging In Plants, Montpellier, 18 July 2007

Computational Image Analysis of Chemical induced Symptoms in C. elegans

Anthony J Flemming, Kris Ver Donck, Johan Geysen

In collaboration with Syngenta, UK.

Poster presentation at the 2007 International Celegans Meeting UCLA June, 26, 2007

Wormholes in Translational Space

Johan Geysen, Marc Moeremans, Yves Willems, Jan Bresseleers, Bill Staffopoulos & Kris Ver Donck

Poster Presentation at Knowledge For Growth, June 08, 2007, Gent, Belgium

From basic genomics to systems biology

Johan Geysen

Poster presentation at the EMBO conference, Introducing AGRON-OMICS: a EU-funded integrated project developing system-level research in Arabidopsis. In collaboration with the AGRON-OMICS consortium participants (www.agron-omics.eu). May 2-4, 2007, Gent, Belgium.

“High Content Wormholes” in Translational Space

Kris Ver Donck

Oral Presentation at the Discovery 2007 Summit, April 2007, Monaco

New Enabling Tools for HCS: Brightfield AND Fluorescence for Broader Applicability in HCS Screening

Bill Staffopoulos

Oral presentation at the High Content Analysis Summit, January 23, 2007, San Francisco USA

2006

From “High Content Screening” to “Robust Machine Vision Solutions” for Genomics, Translational Science, Cloning, Bio-production, & (Stem-) Cell Therapy

Johan Geysen

Oral presentation at 6th Annual Discovery Summit, April 10-12, 2006, Monte Carlo

The potential and promise of label-free technologies for more accurate readings in any biologically based screen

Johan Geysen

Oral presentation at Compatible & Integrated Systems for Improved Biological Screening Optimizing cell-based assays through compatible platforms, data management and assay integration, May 16-17, London, UK

Rapid Non-Invasive Assays for Cell Growth and Inhibitory Effects of Compounds on Primary Cultures of Human Unlabeled Cells

Marc Moeremans, Kris Ver Donck, Bieke Govaerts, Luc Bols, Leen Geuens, Johan Geysen

Poster presentation at ISAC 2006, May 20-24, Quebec, Canada

Use of a novel user-trained bio-imaging software to study small molecule induced accumulation of lipid droplets in primary cultures of human epidermal keratinocytes

Marc Moeremans, Bieke Govaerts, Luc Bols, Kris Ver Donck, Yves Williams, Ron Schwartz, Thomas Berlage, Johan Geysen

Poster presentation at Knowledge For Growth, June 16, 2006, Gent, Belgium

Fast Screening for Inhibitors of Cell Proliferation Using New Confluence Detection for Label-free, Live Cell Cultures

Bieke Govaerts, Marc Moeremans, Kris Ver Donck, Luc Bols, Johan Geysen

Oral and Poster presentation at Knowledge For Growth, June 16, 2006, Gent, Belgium

2005

Non-Invasive Assessment of Cell Growth, Confluence and Compound-induced Inhibition on Unlabelled Primary Human Cell Cultures

Kris Ver Donck, Peter Van Osta, Luc Bols, Marc Moeremans, Leen Geuens, Bieke Govaerts and Johan Geysen

Oral presentation at SBS 2005, Geneva, Switzerland, September 2005

Current and Future Applications of Automated Microscopy in Biotechnology and Drug Discovery Research

Johan Geysen, Peter Van Osta, Luc Bols, Bart Vanherck and Kris Ver Donck

Oral presentation at "Knowledge for Growth" Conference, Flanders Expo, Gent, Belgium, June 2005

Automated Bio-Imaging of Transglutaminase-1 with the MIAS[®]-2 reader in Primary Human Epidermal Keratinocytes Seeded with a Cell Printer

Marc Moeremans, Bieke Govaerts, Kris Ver Donck, Kim Franssen*, Paul Stoppie*, and Johan Geysen

In collaboration with Barrier Therapeutics*

Poster presentation at "Knowledge for Growth" Conference, Flanders Expo, Gent, Belgium, June 2005

Automated Image Analysis to Study the Early Effects of Antifungal Compounds on Growth and Differentiation of the Pathogenic Yeast *Candida albicans*

Kris Ver Donck, Karin Thevissen³, Gerrit Dispersyn², Isabelle Francois³, Marcel Borgers², Bruno Cammue³, and Johan Geysen

In collaboration with Barrier Therapeutics² and the Center of Microbial and Plant Genetics, KU Leuven³

Poster presentation at "Knowledge for Growth" Conference, Flanders Expo, Gent, Belgium, June 2005

Development of an in-vitro method or the evaluation of pharmacological agents in the differentiation and maturation of dendritic cells

Leen Geuens, Kim Habets*, Marina Cools*, Johan Beetens*, Marcel Borgers* and Johan Geysen

In collaboration with Barrier Therapeutics*

Poster presentation at "Knowledge for Growth" Conference, Flanders Expo, Gent, Belgium, June 2005

High Information Content Across the Drug Discovery Value Chain: Digital Imaging as a Key to R&D productivity

Johan Geysen

Workshop at the Discovery 2005 Summit, Montreux, Switzerland, April 2005

2004

Turning a Microscopy Reader Into “Eye and Brain” of a Robot for Automated Cell Culture and Clone Selection

Poster presented by Kris Ver Donck, MAIA SCIENTIFIC
SBS 2004, September 11-15, 2004, Orlando, Florida

Cello – A New Automated Cell Culture System for High Throughput Clone Maintenance & Selection

Joint presentation from The Automation Partnership and MAIA SCIENTIFIC
SBS 2004, September 11-15, 2004, Orlando, Florida

Automated Image Cytometry on Unlabeled Adherent Cells in Variable Background Conditions, Using Brightfield Microscopy

Kris Ver Donck, Peter Van Osta, Luc Bols, Bieke Govaerts, Leen Geuens, Marc Moeremans, Ralf Jans, Bart Van Herck, and Johan Geysen
4th Euroconference: “Flow and Beyond”, Mol, Belgium, September 2004 – [Abstract](#)

Microscopy II – Image Analysis & 3D Reconstruction

This CD is volume 2 in the Microscopy Series, part of the Cytomics Education Initiative of Purdue University Cytometry Laboratories Microscopy. This CD is available from MAIA SCIENTIFIC or from Purdue University via the website www.cyto.purdue.edu. Published by Multimedia Knowledge, Inc. www.mmke.com. ISBN: 1-890473-07-3.

A System Designed for Exploring the Human Cytome

[P. Van Osta](#), B. Vanherck, K. Ver Donck, L. Bols and J. Geysen (poster presentation)
The 13th European Microscopy Conference 2004, Antwerpen, Belgie, August 2004 - [Abstract](#)

Accurate Assignment of Cytoplasmic Structures to Individual Cells in Automated High Volume Image Cytometry

[Kris Ver Donck](#), Peter Van Osta, Luc Bols, Bart Vanherck, Johan Geysen (oral presentation)
ISAC XXII, Montpellier, France, May 2004. - [Abstract](#)

The M⁵ framework for exploring the Human Cytome

[Peter Van Osta](#), Bart Vanherck, Kris Ver Donck, Luc Bols, Johan Geysen (plenary session oral)
Focus on Microscopy, Philadelphia, Pennsylvania, USA, April 2004 - [Abstract](#)

Multimode Microscopy and Image Cytometry in Ultra Low Light and in Variable Background Conditions

[Kris Ver Donck](#), Peter Van Osta, Luc Bols, Bart Vanherck, Johan Geysen (poster presentation)
ISAC XXII, Montpellier, France, May 2004. - [Abstract](#)

Automated High Content Assays: Application Across The Drug Discovery Value Chain

[Johan Geysen](#) (speaker program) -
Practical Experiences of High-Content Screening in Drug Discovery, London, UK, April 2004. - [Handouts](#) (pdf, 2Mb)

Automated Assessment of Cell Growth, Confluence & Compound-Induced Inhibition Using Unlabeled Skin-Derived Cells and Brightfield Microscopy

[Johan Geysen](#), Luc Bols, Kim Franssen, Leen Geuens, Bieke Govaerts, Paul Stoppie, Kris Ver Donck, Peter Van Osta, Marcel Borgers - 65th meeting of the Society for Investigative Dermatology, Providence, Rhode Island USA, April 28-May 1 2004 - with support from The automation Partnership - [abstract](#) (pdf, 80kb) | [poster](#) (pdf, 3.7Mb) | [press release](#)

2003

Solutions for the Challenges in High-throughput Cell Based Screening

Johan Geysen, Peter Van Osta, Luc Bols, Bart Vanherck and Kris Ver Donck
SEBIOT 2003, Madrid, Spain, Plenary Session 5: From Proteins to Cells: Accelerating Cell Biology
abstract (pdf) | slides (pdf)

Ultra-Sensitive Multimode Microscopic Reading in HTS

Kris Ver Donck, Peter Van Osta, Luc Bols, Bart Vanherck and Johan Geysen
SBS-2003, Portland, Oregon USA,
abstract (pdf)

Time-Lapse Projection of Real Time Video Reveals Substantial Detail of C. elegans Locomotion on Agarose and Swimming in Liquid Culture

Kris Ver Donck, Peter Van Osta, Luc Bols, Rock Pulak, Johan Geysen
2003 International C. elegans Meeting, Los Angeles, USA, Poster Abstract.
abstract (pdf) | poster (pdf)

Seamless Integration of Target Validation, Assay Development and HTS

Johan Geysen (plenary speaker program)
SMI Conference Target Validation, London, UK, 2003.

Fast Assay Development for Multimode Microscopy Screening with a Flexible HTS Reader

Kris Ver Donck, Luc Bols, Peter Van Osta and Johan Geysen
6th MIPTec 2003, Basel, Switzerland, abstract on published CD-ROM.
abstract (pdf) | poster (pdf)

Specialty Solutions for Drug Discovery Research: the MIAS-2 Reader Allows You to Focus on Results

Johan Geysen
Drug Discovery & Technology Leader's Summit, Montreux, Switzerland, 2003

2002

The Principles of Scale Space Applied to Structure and Colour in Light Microscopy

Peter Van Osta, Jan-Marc. Geusebroek, Kris Ver Donck, Luc Bols, Johan Geysen, Bart M. ter Haar Romeny
Proceedings of the Royal Microscopical Society, 37 (3): 161-166
full text (pdf)

A New Edge for High Content Screening: The MIAS HCS Platform and eaZYX Imaging

Kris Ver Donck, Marc Vandermeeren, Luc Bols, Peter Van Osta, Yoshinobu Koyama & Johan Geysen
SBS-2002, 8th Annual conference, The Hague, The Netherlands, poster abstract 2471, p 204-205.
abstract (pdf) | poster (pdf)

The Multi-Mode Mosaic Framework for Automated Microscopy and Analysis

Peter Van Osta, Kris Ver Donck, Jan-Marc Geusebroek, Luc Bols and Johan Geysen
Microscience 2002, London, UK, poster abstract
abstract (pdf)

Enhanced One-step Nematode Recognition on Micrographs of Living C. elegans Cultures in 384-well Plates using Linear Scale Space Mathematics

Peter Van Osta, Kris Ver Donck, Jan-Marc Geusebroek, Luc Bols and Johan Geysen
2002 European C. elegans Meeting, Paestum, Italy, Poster
abstract (pdf) | poster (pdf)

At the Higher End of High Content Screening: The MIAS HTS Imaging Device

Kris Ver Donck, Peter Van Osta, Luc Bols, Johan Geysen,
5th Miptec 2002, Basel, Switzerland, poster abstract 82
abstract (pdf) | poster (pdf) | SnapShot Presentation Slides
