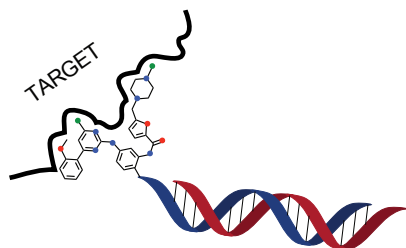


11th International Symposium on DNA-encoded chemical libraries

ETH Zurich, Switzerland
September 7-8, 2023



SYMPOSIUM PROGRAM

www.delsymposium.org



Venue of the Event

ETH Zürich
Institute of Pharmaceutical Sciences
Vladimir-Prelog-Weg 1-5/10
Lecture Hall HCI G3/G7
8093 Zürich
Switzerland

Organizers

Jörg Scheuermann, ETH Zürich
Dario Neri, Philochem/Philogen

Patronage

ETH zürich



Thursday - September 7, 2023 - DAY 1

08:00 Registration

08:50 Welcome / Information Jörg Scheuermann / *ETH Zürich*

09:00 **Opening: Past, Present and Future of DEL technology**
Dario Neri / *Philochem/Philogen (Switzerland/Italy)*

Track 1 Advances in DEL Chemistry (Chair: Frederic Berst / Novartis)

09:20 **DEL synthesis in micelles**
Mike Waring / *University of Newcastle (UK)*

09:45 **A DNA barcode with enhanced chemical stability**
Andreas Brunschweiler / *University of Würzburg (Germany)*

Coffee Break & Poster Session

Track 2 Novel DEL libraries/methodologies (Chair: Moreno Wichert / Roche)

11:00 **Highly pure and diverse macrocyclic DELs by dual display and self-purified solid phase synthesis**
Jörg Scheuermann / *ETH Zürich (Switzerland)*

11:25 **Design, Production and Case Study using a Macrocyclic DEL.**
Lijun Fan / *MSD (USA)*

11:50 **Interconversion between Double-and Single-Stranded DNA-Encoded Chemical Libraries**
Yizhou Li / *Chongqing University (China)*

Lunch & Poster Session

Track 3 Novel DEL methodologies (Chair: Alexander Satz / WuXi Apptec)

13:45 **New modalities in DEL selections**
Xiaoyu Li / *Hong-Kong University (HK, China)*

14:10 **Welcome to Oz, Pulling back the Curtain on DEL Selections and Hit Calling**
Chris Dimitri / *GSK (USA)*

14:35 **Darwinian selection cycles with DELs**
Nicolas Winssinger / *University of Geneva (Switzerland)*

Coffee Break & Poster Session

Track 4 Success Stories and Failures 1 (Chair: Barry Morgan / HitGen)

15:15 **Discovery and Optimization of DEL-Derived DOCK5 Ligands**
John Tatlock / *Pfizer Inc. (USA)*

15:40 **Crossing the Chasm: Enabling the Broad Adoption of DEL Technology**
Anthony Keefe / *X-Chem (USA)*

16:05 **Discovery of highly selective ATP-dependent chromatin-remodeling complexes inhibitors using AI and automation empowered X-DEL**
Bing Xia / *XtalPi (USA)*

Drinking Reception & Poster Session

Invited Speakers' and Sponsors' Dinner

Friday - September 8, 2023 - DAY 2

08:40 Registration

08:50 Information

Track 5 Hit-to-lead development (Chair: Yun Ding / GSK)

09:00 **Design and synthesis of DNA encoded target focused library for the hit to lead optimization**

Xiaojie Lu / *Shanghai Institute of Materia Medica (China)*

09:25 **Optimization of PROTAC Ternary Complex Using a DNA Encoded Library Approach**

Qiuxia (Tracy) Chen / *HitGen (China)*

09:50 **Combining DEL screening and Direct-to-Biology workflows to rapidly identify and improve hits**

Larry Szewczuk / *Janssen (J&J) Inc. (USA)*

Coffee Break & Poster Session

Track 6 Success Stories and Failures 2 (Chair: Jack Scott / MSD)

11:00 **DNA-Encoded Chemical Libraries for the discovery of highly potent tumor-targeting ligands and for the development of anti-cancer Small Molecule Therapeutics**

Samuele Cazzamalli / *Philochem (Switzerland)*

11:25 **Leveraging the power of complementing encoded library platforms to crack challenging targets: from peptide tools to cellularly active small molecules targeting a cytokine-receptor**

Christoph Dumelin & Peter Meier / *Novartis (Switzerland)*

11:50 **Occurrence of false-positives and false-negatives using the PARP/Tankyrase model system**

Raphael Franzini / *Utah University (USA)*

Lunch & Poster Session

Track 7 Future Directions 1 (Chair: Sylvie Sakata / Pfizer)

13:30 **Design of DNA sequences for DEL and beyond: from information encryption to data processing**

Yixin Zhang / *Technical University Dresden (Germany)*

13:55 **Leveraging the Power and Synergies of Screening Strategies to improve Small Molecule Hits Identification success.**

Florent Samain / *Abbvie (USA)*

14:20 **Harnessing the power of DELT data across selections**

Laura Guasch / *Roche (Switzerland)*

Coffee Break & Poster Session

Track 8 Future Directions 2 (Chair: Robert Goodnow / Takeda)

15:30 **ProbeMaster: DELs reemployed**

Wenji Su / *WuXi AppTec (China)* & Kelly Teske / *Promega (USA)*

15:55 **Miniaturized Microcarrier Culture and Engineered Polymer Scaffolds for Cellular Activity-Based DEL Screening**

Brian Paegel / *UC Irvine (USA)*

16:20 **Recording binding information directly into DNA encoded libraries using terminal deoxynucleotidyl transferase**

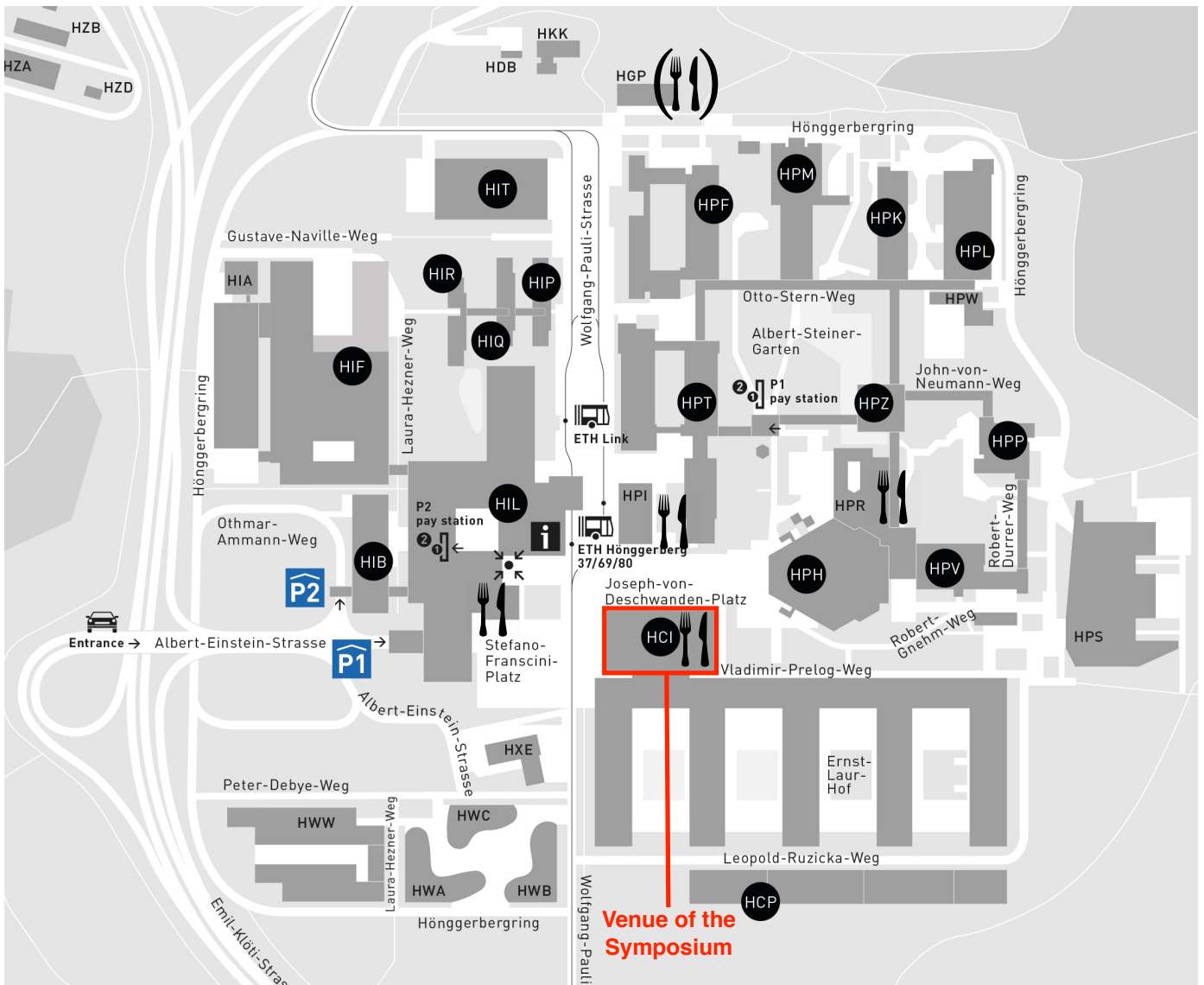
Dennis Gillingham / *University of Basel (Switzerland)*

16:45 **Closing remarks**

Drinking Reception & Best Poster Award

General Information

Symposium Venue: ETH Zurich Hönggerberg



Contacts

Ambulance	144
Police / Fire	112
Taxi	044 777 77 77 or 044 444 4444

WLAN

Network	"public" or "public-5"
Login	connect and follow the instructions "login for ETH guests"

websites

Symposium website	https://delsymposium.org
ETH website:	https://ethz.ch/en.html
ETH at a glance:	https://ethz.ch/content/dam/ethz/main/eth-zurich/Informationsmaterial/GB22/PDF-Downloads/GB22-eth-zuerich-print-v10_EN.pdf
DEL @ ETH	https://del-technology.ethz.ch/

Organizers

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Jack Scott, MSD

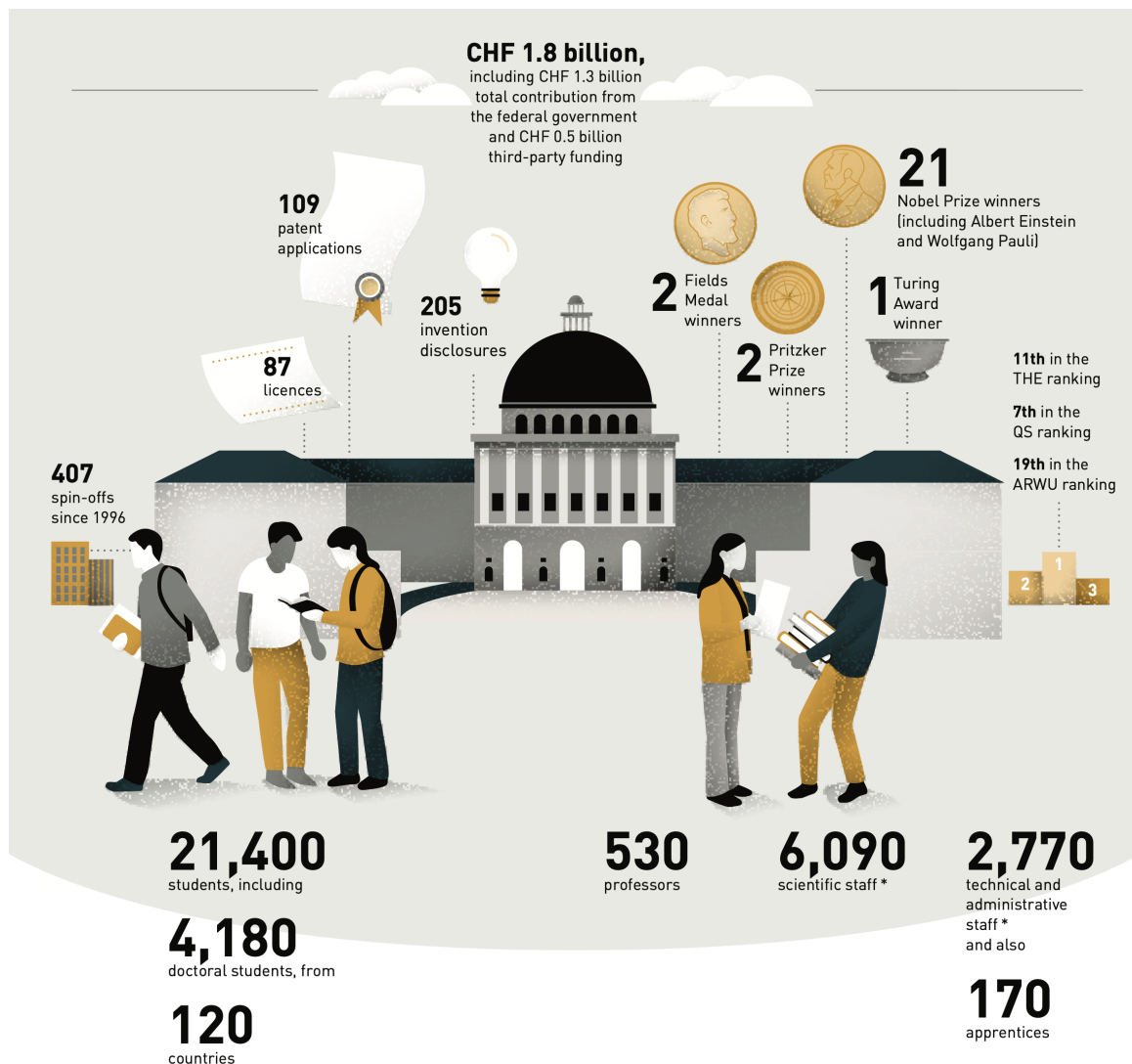
Mike Waring, Newcastle U

Nicolas Winssinger, U Geneva

Damian Young, Baylor College of Medicine

Yixin Zhang, TU Dresden

ETH Zürich - facts and figures



* full-time equivalents (FTEs), annual average

- P1** Iterative combinatorial libraries as a tool to rapidly understand SAR
 Matthew Katcher, Phyo Phyo Zin, Nhu Nguyen, Edward Williams, Narbe Mardirossian
Terray Therapeutics, U.S.A
- P2** Affinity Enhancement of Protein Ligands by Reversible-Covalent Engagement of Lysine Residues
 Alberto Dal Corso
University of Milan, Italy
- P3** Is it possible to apply a DNA-binding target to a DEL selection?
 Amber Hackler
MSD / Merck, U.S.A.
- P4** PSMA-targeted Small Molecule-Drug Conjugates for the Treatment of Metastatic Prostate Cancer
 Tony Georgiev, Sara Puglioli, Lucrezia Principi, Ettore Gilardoni, Dario Neri, Gabriele Bassi, Samuele Cazzamalli
Philochem, Switzerland
- P5** Binding Affinities of On-DNA Compounds measured by Native Mass Spectrometry
 Philipp Bittner, Andreas Gloger, Michelle Keller, Renato Zenobi, Jörg Scheuermann
ETH Zürich, Switzerland
- P6** Highly efficient micellar mediated approaches for the synthesis of DNA-encoded libraries
 Jessica Graham and Mike Waring.
University of Newcastle, U.K.
- P7** Next-generation dual-display DNA-encoded chemical libraries
 Louise Plais, Jörg Scheuermann
ETH Zürich, Switzerland
- P8** NC-DEL Technology: Selective Cleavable Hairpin DELs and their Utility in DEL
 Masatoshi Niwa
Nissan Chem, Japan
- P9** Antimony Salt-Promoted Cyclization Facilitating On-DNA Syntheses of Dihydro-quinazolinone Derivatives and its Applications
 Qigui Nie
Chongqing University, China
- P10** Impact of library input on the hit discovery rate in DNA-Encoded Chemical Library selections
 Sara Puglioli, Sebastian Oehler, Luca Prati, Jörg Scheuermann, Gabriele Bassi, Samuele Cazzamalli, Dario Neri, Nicholas Favalli
Philochem Switzerland
- P11** Selection of dual-display DNA-encoded chemical library for SARS-CoV-2 main protease inhibitor discovery
 Shihao Liu, Chao Xie and Xiaoyu Li
Hong-Kong University, China
- P12** DEL Selection against live cells
 Yuhan Gui
Hong-Kong University, China
- P13** Novel binder of mSin1 PH-domains identified by DNA display of lipidic small molecules library
 Arthur Gonse, Jelena Gajić, Jean-Pierre Daguier, Sofia Barluenga, Robbie Loewith, Nicolas Winssinger
University of Geneva, Switzerland
- P14** Multicomponent DNA-Compatible Synthesis of an Annelated Benzodiazepine Scaffold for Focused Chemical Libraries
 Guixian Zhao
Chongqing University, China
- P15** Recording binding information directly into DNA-encoded libraries using terminal deoxynucleotidyl transferase
 Lukas Schneider
University of Basel, Switzerland
- P16** Affinity and Selectivity Maturation DNA-Encoded Chemical Libraries allow the isolation of PSMA-specific ligands with reduced affinity for the GCP111 anti-target
 Laura Lucaroni, Sebastian Oehler, Tony Georgiev, Marco Müller, Roberto De Luca, Nicholas Favalli, Gabriele Bassi, Samuele Cazzamalli, Dario Neri, Luca Prati
Philochem, Switzerland
- P17** High-yield and high-purity amide bond formation using DMTMM PF6 for DNA-encoded libraries
 Takumi Hosozawa
Nissan Chem, Japan
- P18** New on-DNA reactions and their applications in hit discovery
 Meiyong Cui, Jiaxiang Liu, Yujie Chen, Juan Yang, Yuhan Lv, Liang Huang, Huihui Zhu, Xu Qian, Xuan Wang & Xiaojie Lu
Alphama and SIMM, China

- P19** In vitro two hybrid system as a potential novel selection method for the DNA encoded libraries
Koder Dagher, Dennis G. Gillingham
University of Basel, Switzerland
- P20** Selection of DNA-encoded Glycan Library against Hemagglutinin of Influenza
Xingyuan Liu, Chao Xie, Binging Shi, Ruohan Wei, Xuechen Li and Xiaoyu Li
Hong-Kong University, China
- P21** Synthetically Validated, 3D-rich, Multifunctional, Novel Synthons for High Quality DELs
I. Proietti Silvestri, C. Chu, B. Gill, J. Franklin, L. Grady, M. Epstein, E. Chong Ng and Chris Swain
Liverpool ChiroChem Ltd., U.K. and Anagenex Inc, U.S.A.
- P22** A DNA-encoded chemical library based on chiral 4-amino-proline enables stereospecific isozyme-selective protein recognition
Sebastian Oehler, Samuele Cazzamalli, Dario Neri, Nicholas Favalli and Gabriele Bassi
Philochem, Switzerland
- P23** Conversion of bifunctional molecule from DEL to NanoBRET Tracer
Kelly A. Teske, Wenji Su, Cesear R. Corona, Jing Wen, Jason Deng, Yan Ping, Zaihong Zhang, Qi Zhang, Jennifer Wilkinson, Kendra R. Nealey, James D. Vasta, Poncho L. Meisenheimer, Letian Kuai, and Matthew B. Robers
Promega Inc., U.S.A and WuXi Aptec, China
- P24** Selecting DNA encoded small molecules that direct protein ubiquitination
Pinwen Cai, Dennis Gillingham
University of Basel, Switzerland
- P25** An assessment of the mutational load caused by various reactions used in DNA encoded libraries
Basilius Sauter, Lukas Schneider, Dennis Gillingham
University of Basel, Switzerland
- P26** Off-rate Screening to Optimise Hits from Encoded Library Screens
Andrew Madin
AstraZeneca, U.K.
- P27** Development of GCPIII small organic ligands to outcompete the uptake of anti-cancer PSMA-targeted therapeutics in healthy organs
Marco Müller, Samuele Cazzamalli, Gabriele Bassi, Dario Neri and Sebastian Oehler
Philochem, Switzerland
- P28** The application of GPCR StaRs for DNA Encoded Library Screening
Greg Osborne
Sosei Heptares, U.K.
- P29** Selection of DNA-encoded library against live cells for cell penetrating molecules discovery
Cen Huang, Xiaoyu Li
Hong-Kong University, China
- P30** A Novel Method for Normalizing Data from DNA-Encoded Library Selections
Zsofia Lengyel-Zhand
Pfizer, U.S.A.
- P31** A novel stereo- and regio-defined DNA-Encoded Chemical Library for the identification of NKG2D hit compounds
Francesca Migliorini, Nicholas Favalli, Sheila Dakhel Plaza, Samuele Cazzamalli, Dario Neri
Philochem, Switzerland
- P32** Discovery and Development of Casein Kinase 2 Inhibitors Using DNA-Encoded Chemical Libraries
Murugesan Palaniappan, Anil Kumar Devakrishnan, Kurt Bohren, Kiran Sharma, Yong Wang, Suzanne Fuqua, Martin Matzuk
Baylor College of Medicine, U.S.A.
- P33** X-Chem DELability Assessment for Efficient Determination of Target and Reagent Suitability for DEL Screening
Paolo A. Centrella, Zhen Chen, Matthew A. Clark, Marie-Aude Guié, John P. Guilinger, Anthony D. Keefe, Anton Kozhushnyan, Scott Lindberg, Rhys Dylan Taylor, Zooley Wang, Xin Zhang, Ying Zhang
X-Chem Inc., U.S.A.
- P34** Discovery of Novel Efflux Pump Inhibitors Using X-Chem DEL Technology
Anton Kozhushnyan, Jenny Liu, Zhen Chen, Thomas Dougherty, John P. Guilinger, Livia Shehaj, Anastasia A. Yakhnina, Ying Zhang, Anthony D. Keefe, Stephen Lory
X-Chem Inc. and Harvard Medical School, U.S.A
- P35** DEL screening of Pks13, targeting Mycobacterium tuberculosis
Inna Kreiger, Curtis Englehart, Matthew Zimmerman, Martin Gengenbacher, Veronique Dartois, Rachael Jetson, Takashi Satoh, Christopher Hupp, John Yeoman, Subbarao Yalamanchili, Paige Dickson, Anthony Keefe, Ying Zhang, James Sacchettini, Dirk Schnappinger
X-Chem Inc. and Texas A&M University, U.S.A.

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