



# TARGET 2035

## A PROBE FOR EVERY PROTEIN

**KICK-OFF WEBINAR SERIES**  
**10 – 12 NOVEMBER AND 16 NOVEMBER 2020**

This webinar series aim to kick-off a federated global effort of biomedical scientists from the public and private sectors developing and applying new technologies to create by year 2035 chemogenomic libraries, chemical probes, and/or biological probes for the entire human proteome. The webinars will be a mixture of talks, discussion panel and participant Q&A sessions, featuring both prominent scientific leaders and young scientists to provide perspectives, examples and demonstrate the latest enabling technologies.

Hosted by the SGC and Boehringer Ingelheim

[TARGET2035.NET](http://TARGET2035.NET)

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# TARGET 2035 | A PROBE FOR EVERY PROTEIN | KICK-OFF WEBINAR SERIES

**Tuesday 10 November 2020** 7–9 am PST | 10–12:00 EST | 15–17:00 GMT | 16–18:00 CET

**WHY Target 2035** Moderator: **Anke Mueller-Fahrnow** (Innovation Campus Berlin – Nuvisan)

10 min	<b>Cheryl Arrowsmith</b> (SGC-University of Toronto)	Welcome and introduction
25 min	<b>Aled Edwards</b> (SGC-University of Toronto)	WHY we need more chemical tools to better understand human biology – academic perspective
25 min	<b>Adrian Carter</b> (Boehringer Ingelheim)	WHY we need more chemical tools to make better medicines – industry perspective
60 min	<b>Derek Lowe</b> (Novartis Institutes for BioMedical Research) <b>Deborah M. Rothman</b> (Merck) <b>Peter Kirkpatrick</b> (Nature Reviews Drug Discovery) <b>Paul Workman</b> (The Institute of Cancer Research, London) <b>Suzana Petanceska</b> (National Institute on Aging, NIH)	Panel discussion with audience Q&A

**Wednesday 11 November 2020** 7–9 am PST | 10–12:00 EST | 15–17:00 GMT | 16–18:00 CET

**WHAT will need to be done for Target 2035** Moderator: **Milka Kostic** (Dana-Farber Cancer Institute)

## EXEMPLARS FROM THE RECENT PAST

5 min	<b>Milka Kostic</b> (Dana-Farber Cancer Institute)	Welcome and introduction
15 min	<b>Stefan Knapp</b> (SGC- Goethe University Frankfurt)	Expanding the scope of kinase chemical probe development
15 min	<b>Cheryl Arrowsmith</b> (SGC-University of Toronto)	Chemical Probes to modulate epigenetics: learnings from a 10-year journey
15 min	<b>Bryan Roth</b> (University of North Carolina at Chapel Hill)	Illuminating the understudied GPCR-ome
10 min	Discussion and audience Q&A	

## OPENING UP NEW TARGET AREAS

15 min	<b>Peter Sorger</b> (Harvard)	Title TBA
15 min	<b>Sara Buhrlage</b> (Dana-Farber Cancer Institute)	Target class approach for DUB probe development
15 min	<b>Dirksen Bussiere</b> (Eli Lilly)	The Structural basis of indisulam-mediated RBM39 recruitment to DCAF15 E3 ligase complex
15 min	Discussion and audience Q&A	

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**Thursday 12 November 2020** 7–9 am PST | 10–12:00 EST | 15–17:00 GMT | 16–18:00 CET

## HOW will we achieve Target 2035 goals – new technology and approaches

Moderator: **Matthew Hall** (National Center for Advancing Translational Sciences, NIH)

### ACCELERATING CHEMISTRY

5 min	<b>Matthew Hall</b> (National Center for Advancing Translational Sciences, NIH)	Welcome and introduction
15 min	<b>Angela Koehler</b> (MIT)	Expanding the repertoire of druggable targets
15 min	<b>Jacob Bush</b> (GSK)	Reactive fragment platforms for the identification of chemical tools
15 min	<b>Damian Young</b> (Baylor College of Medicine)	Systematic chemical diversity to enable probe and drug development
10 min	Discussion and audience Q&A	

### ACCELERATING CHEMICAL BIOLOGY

15 min	<b>Alison Axtman</b> (SGC-University of North Carolina at Chapel Hill)	Design of the first selective chemical probe for the pleiotropic kinase CK2
15 min	<b>John Tallarico</b> (Novartis Institutes for BioMedical Research)- TBC	Title TBA
15 min	<b>Michelle Arkin</b> (University of California San Francisco)	Chemical biology of protein-protein interactions
15 min	Discussion and audience Q&A	

**Monday 16 November 2020** 1–3 am EST | 7–9 am CET | 14–16:00 CST | 15–17:00 JST | 17–19:00 AEDT

## Asia/Pacific session – A concise introduction to Target 2035 Moderator: **Hisanori Matsui** (Takeda)

### WHY, WHAT AND HOW WILL WE ACHIEVE TARGET 2035

10 min	<b>Cheryl Arrowsmith</b> (SGC-University of Toronto)	Welcome and introduction
10 min	<b>Aled Edwards</b> (SGC-University of Toronto)	Overview of Target 2035 – academic and pharma perspectives
10 min	<b>Adrian Carter</b> (Boehringer Ingelheim)	

### CHEMICAL BIOLOGY

5 min	<b>Hisanori Matsui</b> (Takeda)	Introduction
15 min	<b>Minoru Yoshida</b> (RIKEN)	Discovery of a small molecule that rescues phenotypes of cells carrying disease-related mitochondrial DNA mutations by inducing metabolic redirection
15 min	<b>Tim Willson</b> (SGC-University of North Carolina at Chapel Hill)	Chemical tools to illuminate dark kinases
10 min	Discussion and audience Q&A	

### DRUG DISCOVERY

15 min	<b>Jonathan Baell</b> (Monash University)	BCL-XL, KAT6A, GSTO1-1, MERTK: 4 targets, 4 probes, 15 minutes, any drugs?
15 min	<b>Hiroaki Suga</b> (University of Tokyo)	The power of RaPID system for de novo macrocycles discovery
15 min	Discussion and audience Q&A	