



german
science day

02. Februar 2012
Berlin

Fight Cancer! Eine Initiative der Deutschen Biotechnologie

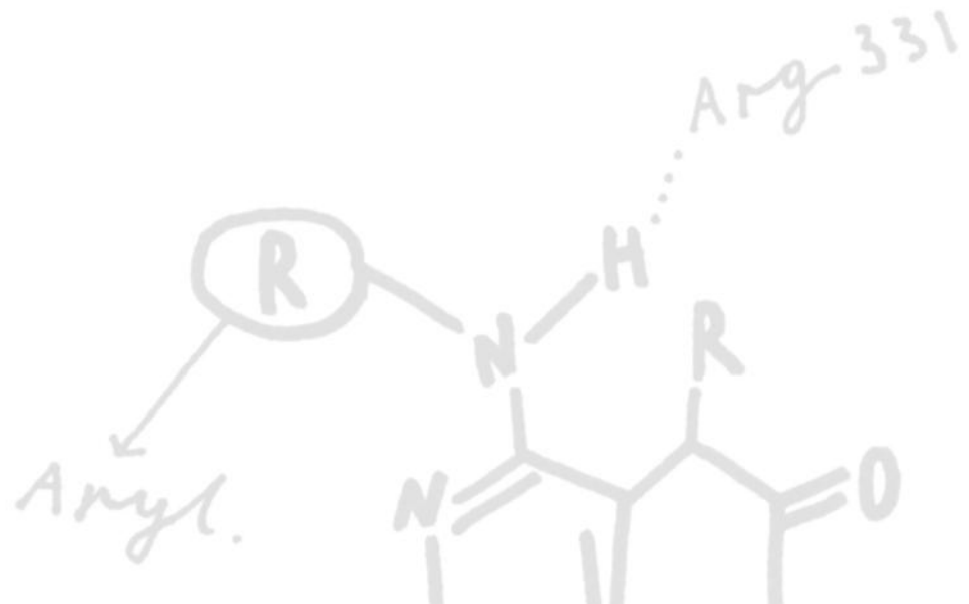
**Evotec: Partner of Choice in Oncology
Drug Discovery**

**Dr. Cord Dohrmann,
Chief Scientific Officer**



Agenda

- **Evotec at a glance**
- Experience and current oncology partners
- Examples of cancer alliances
- Opportunities with Evotec



Leader in high quality drug discovery solutions

Evotec at a glance ¹⁾

1

Best-in-class in R&D efficiency

- Complete, systematic, unbiased and most comprehensive infrastructures to significantly reduce costs and accelerate time to discovery decisions

2

Profitable & fast growing

- Double-digit y-o-y revenue growth, profitable, cash generating, strong portfolio of significant strategic alliances

3

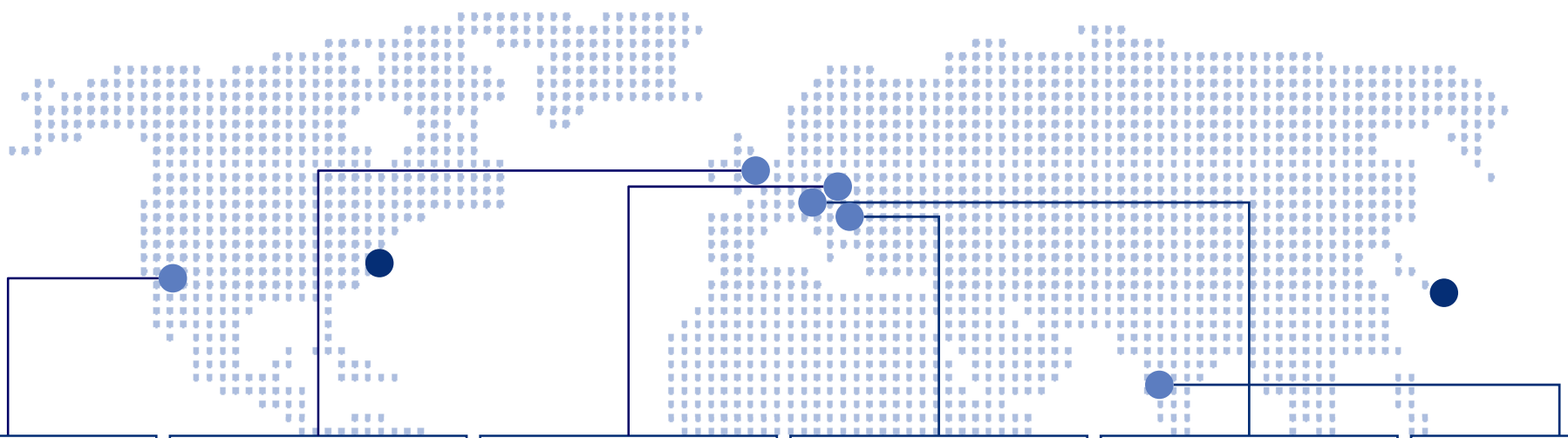
First-in-class targets and deep-pipeline

- Matured partnered product pipeline includes Phase III, Phase II and Phase I assets, and first-in-class targets for future drug discovery alliances



Global reach for global projects – approx. 600 scientists

Evotec worldwide



San Francisco, US
~30 employees

- Compound Procurement
- Compound QC and storage



Abingdon, UK
~215 employees

- Medicinal chemistry
- ADMET
- Structural biology



Hamburg, Germany
~200 employees

- Screening
- HTS, NMR
- *in vitro* & *in vivo* biology



Munich, Germany
~25 employees

- Phospho-proteomics
- Chemical proteomics



Göttingen, Germany
~40 employees

- Metabolics
- Regenerative Medicine



Thane, India
~130 employees

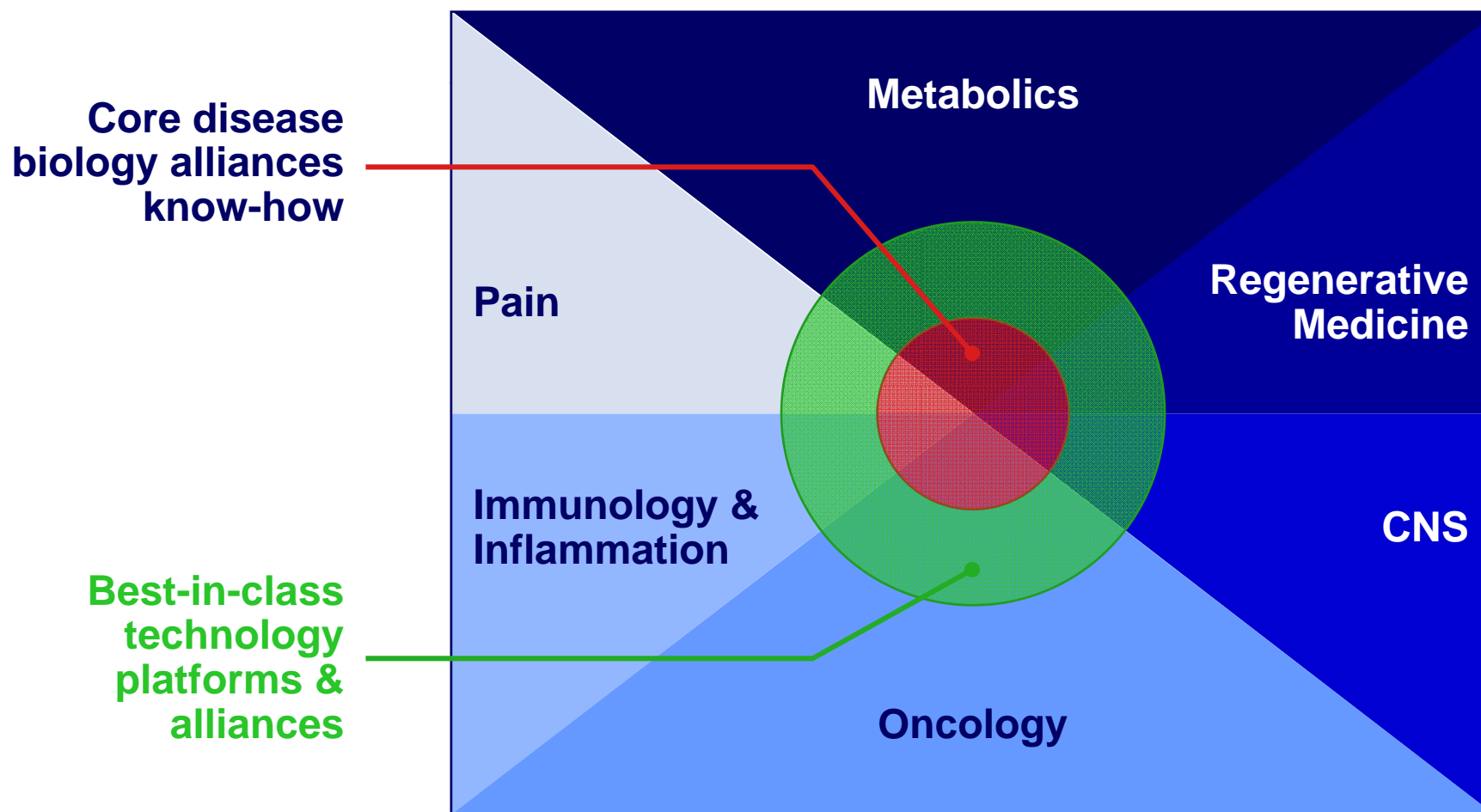
- Library synthesis & mgmt.
- Development chemistry



- Sales representation (Boston, Tokyo)
- Operations & sales representation

Drug discovery alliances & more

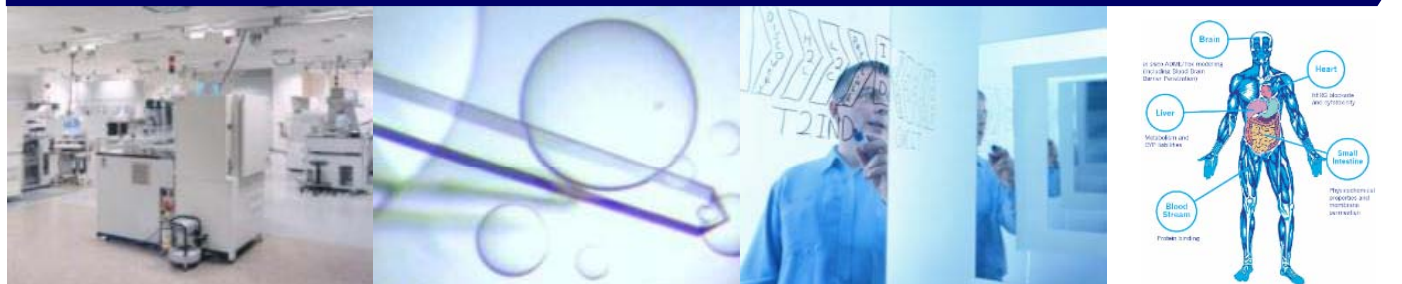
Our alliance model in drug discovery and product development



Best-in-class platforms yield superior productivity

EVO DISCOVER – Best from target to IND

Disease biology expertise



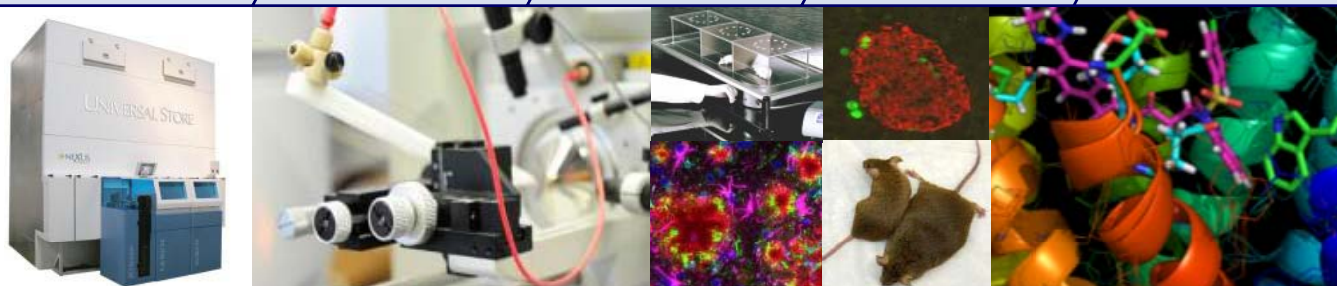
Target

Hit

Lead

PDC ¹⁾

IND



Highly experienced program management

Key strength

- 1 Complete value chain, with all value creating steps in house (>100 lead series, >50 pre-clinical, and clinical candidates)
- 2 Proven target ID platform focusing on disease modifying mechanisms, regenerating and protecting key tissues and cell types
- 3 Industry leader in HTS and other platforms (e.g. FBDD, HCS, compound management, chemo-proteomics, phosphoproteomics) ²⁾
- 4 High quality medicinal chemistry, supported by leading SGDD ³⁾ and computational chemistry
- 5 Comprehensive compound profiling







1) PDC ... Preclinical Development Candidate

2) HTS ... High throughput screening; FBDD ... Fragment-based Drug Discovery (EVOLution); HCS ... High Content Screening

3) SGDD ... Structure based drug design

Deep clinical pipeline without financial risk

Portfolio of product development partnerships

Indication	Partner	Status	Upside for Evotec	Next milestone	Commercials
Diabetes ¹⁾	 	Phase III	+++	Final Phase III data	Milestones, royalties; potential market approx. € 500 m
Alzheimer s Disease		Phase II	+++++	Phase IIb initiation	Milestones, royalties; potential market approx. € 3–5 bn
Treatment resistant depression	Open	Phase II	+++	New partnering	Open
Insomnia ²⁾		Phase II	++	Phase IIb start	Milestones, royalties
Inflammation in animal health ³⁾		Phase I/II	+++	Phase II start	Milestones, royalties
Oncology		Pre-clinical	++	Partnering	Milestones, royalties

1) DiaPep277 is being developed by Andromeda Biotech Ltd and has been partnered with TEVA Pharmaceuticals Industries Ltd

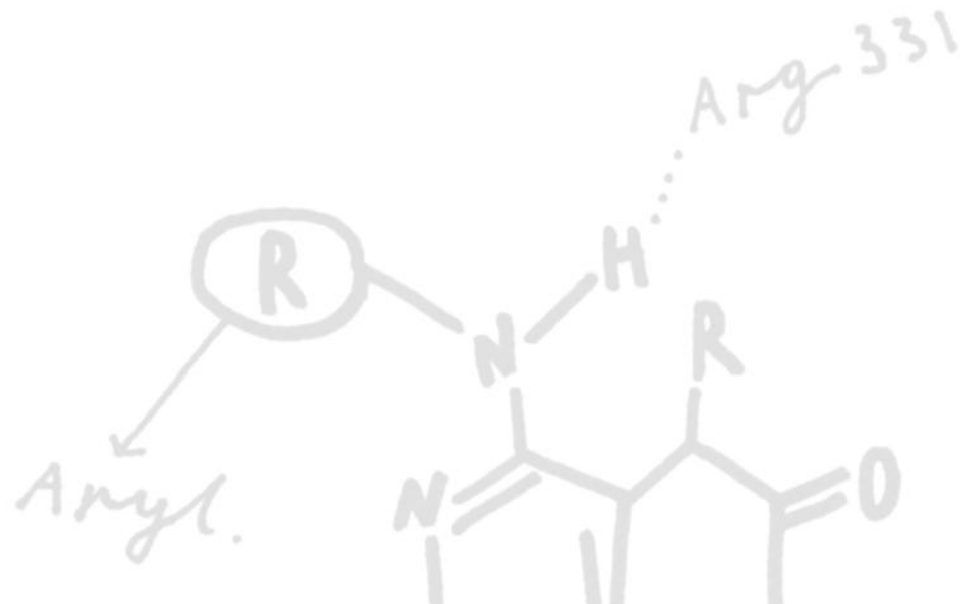
2) Chinese rights only; Safety and Phase IIb study planned starting 2012

3) Animal Health (undisclosed)

4) EVT 501 (H3), P2X3, ...

Agenda

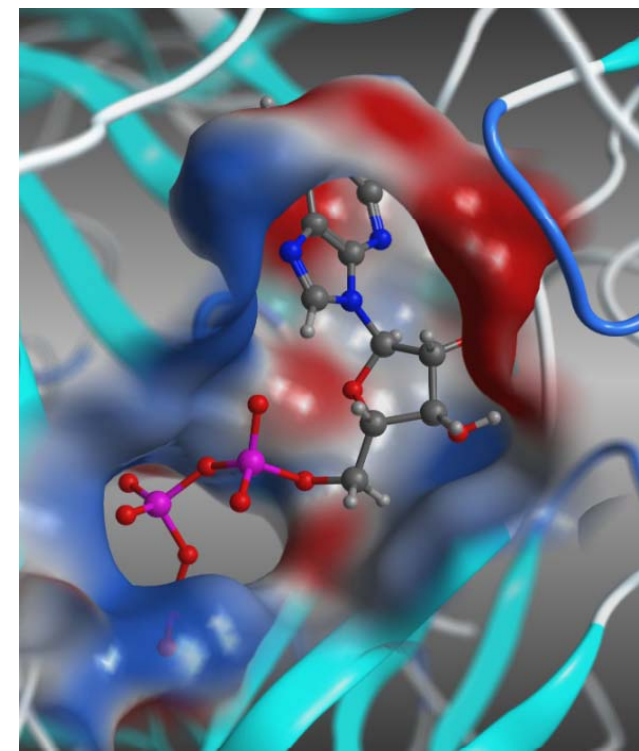
- Evotec at a glance
- **Experience and current oncology partners**
- Examples of cancer alliances
- Opportunities with Evotec



Productive oncology platform

Wide spectrum of mechanisms and target classes

Mechanisms	Targets
Signal transduction	Akt/PKB, Alk-3 and -5, CK2, Aurora, CHK1/2, Plk-2, b-Raf, c-Met, c-Src, Erk, CDK, aurora kinase, KDR, HSP90
Tumor metabolism	Pyruvate kinase M1 and M2, lactate DH, isocitrate dehydrogenase
Tumor metastasis and vascularisation	MMPs, methionine aminopeptidase
Apoptosis	Bcl-2 family, PARPs, TRPM8
Epigenetics	HDACs (all 3 families), histone demethylases and histone methyl transferases
Imaging assays	Cell proliferation, cell death, apoptosis, mitotic index, biomarkers



➔ **Delivered 5 clinical candidates and 3 clinical stage compounds**

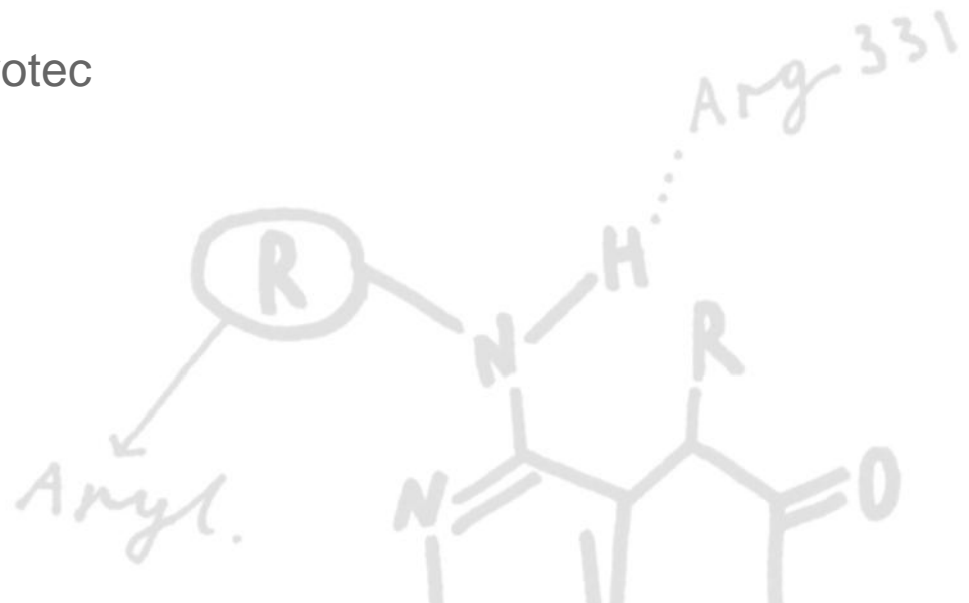
Current oncology alliances

Highly flexible arrangements – optimal fit for customer and project

Drug discovery partners	Number of Projects	Evotec contribution
Boehringer Ingelheim	Multiple	Integrated
Genentech	Multiple	Integrated
Daiichi	Multiple	Profiling
Takeda	Single	Profiling
Epizyme	Single	Integrated
Oncotherapy	Single	Integrated
Active Biotech	Single	Integrated
Biomarker development	Number of Projects	Evotec contribution
Roche	Multiple	Phosphoscout
Ambit	Multiple	Phosphoscout
Technical University Munich	Multiple	Phosphoscout

Agenda

- Evotec at a glance
- Experience and current oncology partners
- **Examples of cancer alliances**
 - **Boehringer Ingelheim**
 - **Roche**
- Opportunities with Evotec



Integrated oncology alliance with Boehringer Ingelheim

Key goals

- Long-term joint innovation task force with a new focus on **oncology**
- Optimal use of Boehringer Ingelheim target and biology know-how with Evotec science and technologies
- Incentives based on success and long-term product upside

Key terms and progress

- Started 2004 and extended to end 2013
- Team of FTEs from Evotec and BI
- Research funding for Evotec FTEs
- Significant milestones and royalty upside
- 15 Milestones achieved to date; 5 compounds in development and 2 in the clinic

One of the most significant global joint innovation teams between Pharma & Biotech

The future paradigm in oncology

Biomarkers – Response Prediction – Personalized Medicine

Response prediction and biomarker discovery to support the development of **targeted cancer drugs**

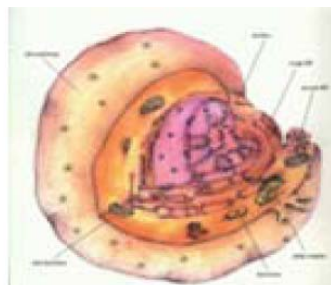
Tumor Histology



Old Paradigm

Toxic, non-selective, chemotherapy drugs

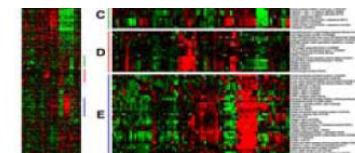
Molecular Biology



Targeted Therapies

Wider therapeutic index, derived from molecular biology discoveries of the '80s

Molecular Profile

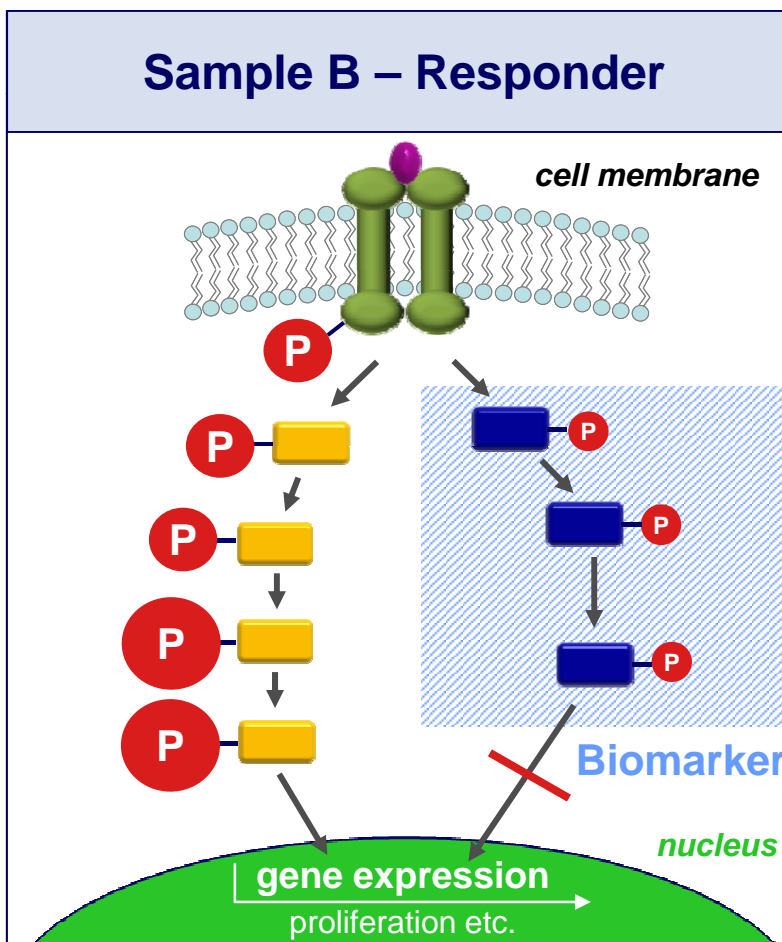
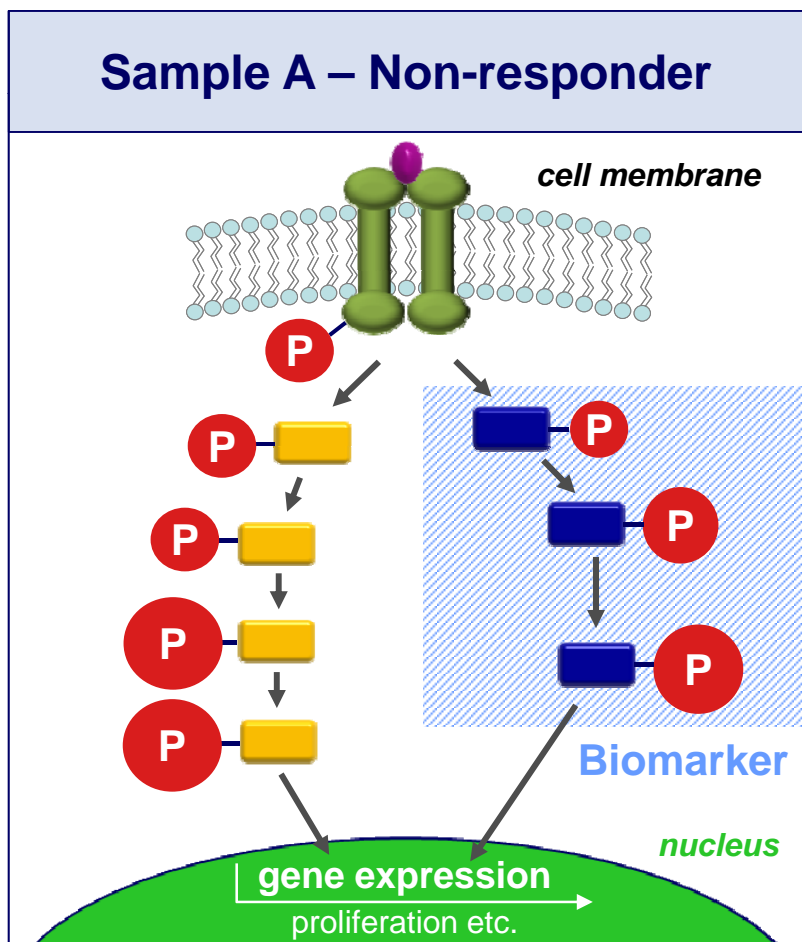


Future Paradigm

Integration of molecular diagnostics with targeted therapies for personalized cancer care

Phospho-signatures as biomarkers

Phosphorylation state reflects activity status of proteins/pathways



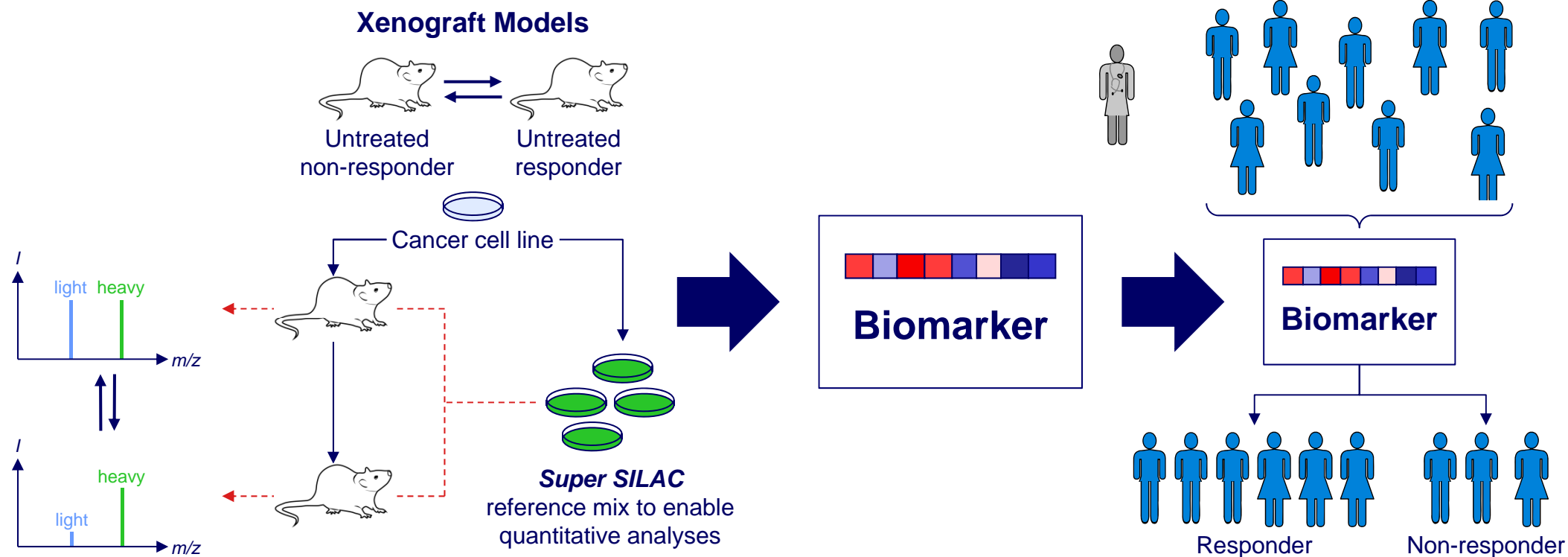
Patient samples A and B are distinguishable due to their **individual phosphorylation patterns** ('phospho-signatures') that correlate with the drug's effects.

Roche oncology alliance

A new approach to biomarker development / response prediction

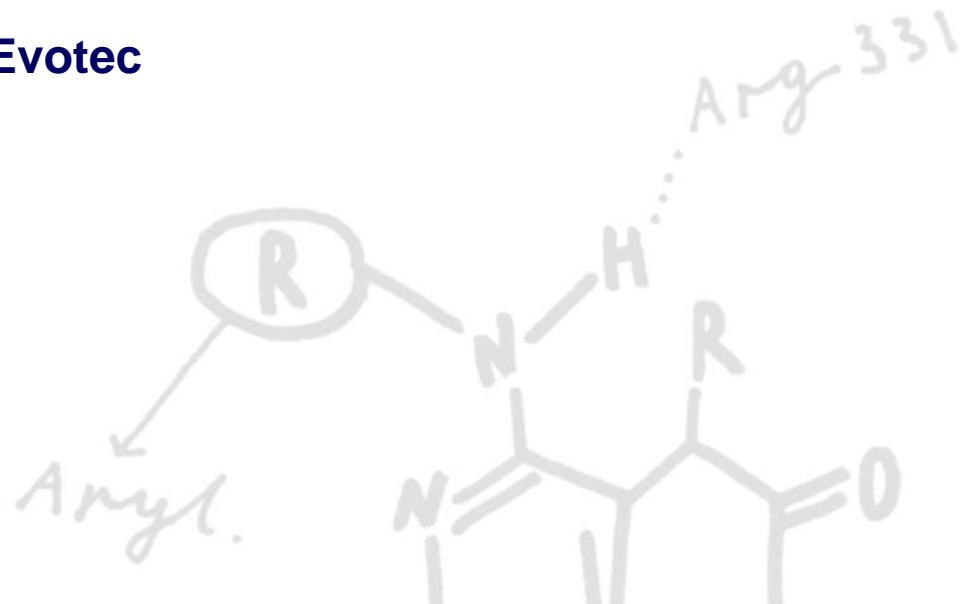
PhosphoScout

- Identification and quantification of cellular phosphorylation events by high end mass spectrometry
- Predicting favourable dosage and efficacy of targeted cancer drugs in patients



Agenda

- Evotec at a glance
- Experience and current oncology partners
- Two example alliances
 - Boehringer Ingelheim
 - Roche
- **Opportunities with Evotec**



Leveraging Evotec expertise in oncology

Opportunities with Evotec

Kinase first-in-class and fast follower drug discovery

- Leverage KinAffinity and Structure Based Drug Design platforms
- Apply high content imaging and/or Mesoscale technologies

Epigenetic targets

- Good fit with Structure Based Design, biophysical assay technologies and acetylomics

Protein::protein interactions

- Rationale design approaches and biophysical screening routes
- Mass Spec platform reveals multiprotein complex assemblies

Phenotypic screens in conjunction with Cellular Target Profiling

- *In vitro* mechanism-of-action studies
- Potential for differentiated pipeline approach
- Opens target space and hence chemistry space

Your contact:

Dr. Cord Dohrmann
Chief Scientific Officer

+49.(0).40.560 81-241
+49.(0).40.560 81-333 Fax
cord.dohrmann@evotec.com

