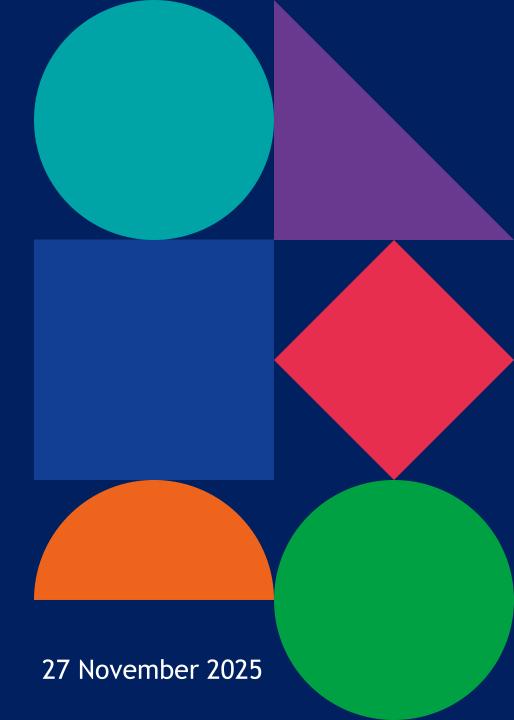




# Kickstart your career in BioBusiness - Business Developer

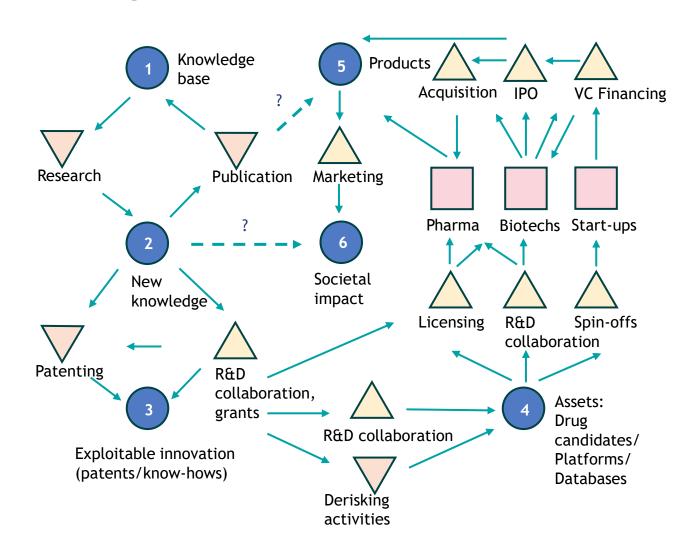


Ethan Kuo, Business Development Manager
VIB | Innovation and Business



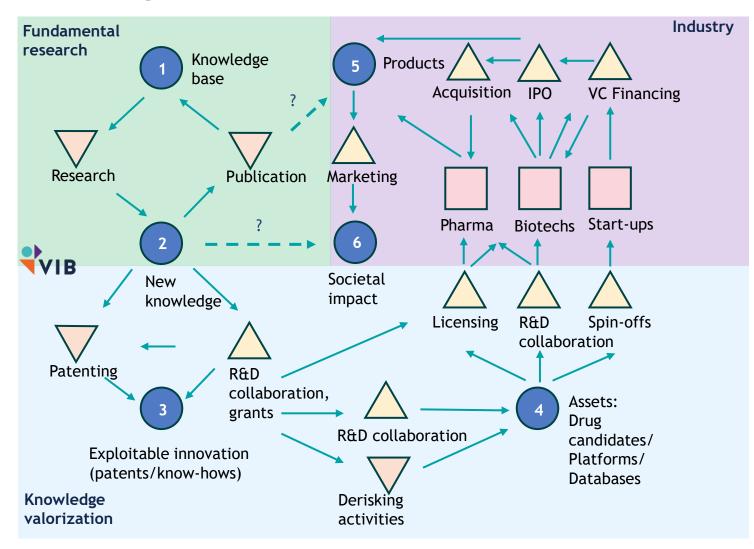
## Thought exercise: How does scientific research *actually* translate into societal impact?

- Academics prioritize research and publications
- Scientists aspire to see their work create tangible societal impact...
- However, this does not happen spontaneously
- In most cases, practical applications are essential
- Achieving impact requires many more steps beyond fundamental research



## Thought exercise: How does scientific research *actually* translate into societal impact?

- Academics prioritize research and publications
- Scientists aspire to see their work create tangible societal impact...
- However, this does not happen spontaneously
- In most cases, practical applications are essential
- Achieving impact requires many more steps beyond fundamental research
- Business development in the life sciences includes: R&D collaborations, grant applications, licensing, acquisitions, spin-offs, and marketing



## Business developers in biobusiness





• **Profile:** Scientifically trained (PhD) with strong business acumen



#### Responsibility:

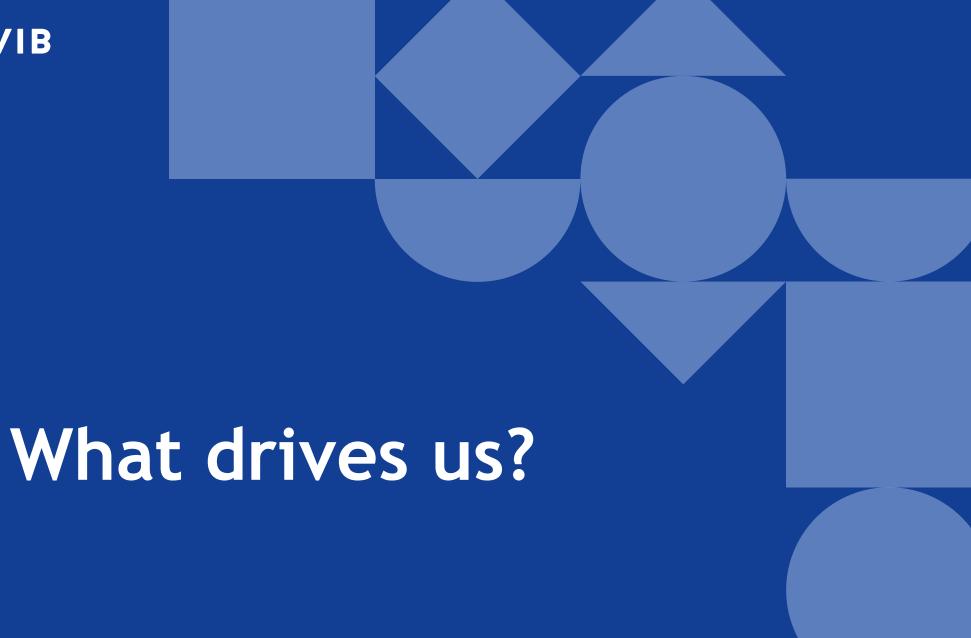
- Scouting and evaluating business opportunities from research programs
- Building connections between ideas and stakeholders
- Facilitating and executing agreements between parties



#### Impact:

- Transforming research programs into business opportunities for societal benefits
- Making key connections to move the needle
- Maximizing returns while minimizing risk for all stakeholders (win-win)



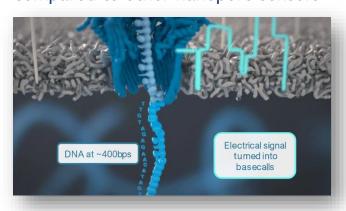




## From bacterial proteins to user-friendly DNA analysis

## VIB-VUB developed bacterial pore protein CsgG

 CsgG-derivatives give stable currents and generate data of superior quality compared to other nanopore sensors





Prof. Han Remaut, VIB-VUB Center for Structural Biology

#### Oxford Nanopore Technologies inlicensed CsgG nanopore in 2016

- Co-developing CsgG properties for optimal nanopore sequencing data
- CsgG sensing nanopore used in ONT's DNA/RNA sequencing devices





## Globally commercially available since 2016

- Real-time analysis of native DNA or RNA of anything, by anyone, anywhere
- Available in >100 countries
- MinION®: the only portable, real-time DNA/RNA sequencer (first product, launched in 2016)
- GridION®: benchtop device to run up to five MinION Flow Cells at once
- PromethION®: cost-effective, high throughput sequencing (e.g., population genome projects)



### Advancing novel immuno-oncology assets

VIB-KU Leuven identified novel targets to enhance T-cell response in cancer

- Targeting key metabolic and immunological pathways in the TME
- Inhibiting these targets allows for reprogramming of cancer cell metabolism, pro-inflammatory macrophages and natural killer cells
- Potential new treatment for checkpoint inhibitor-resistant tumors



Prof. Max Mazzone,
VIB-KU Leuven Center for Cancer Biology

Strategic partnership with Italian-based Lever Bio in 2025

- Lever Bio (launched in 2024) is focused on developing next-gen immuno-oncology therapies
- Agreement provides access to VIB's IP to further develop 4 first-in-class VHH antibody assets
- Lever Bio will further progress assets through pre-clinical development

Towards the clinic: IND-enabling studies expected in 2026

- Lead program originating from VIB
- Validate therapeutic potential and positioning in solid tumors



Prof Mazzone's groundbreaking work in immuno-metabolism and tumor immunology provides a strong scientific basis for these innovative VHH antibody programs.

Dr. Chiara Donini Project Manager, Lever Bio

TME: Tumor MircoEnvironment



## A dedicated incubator enabling AgTech start-ups to grow

#### INARL

## Attracting US based company to Flanders

- 2016: Inari founded in the US, pioneering multiplex gene editing in plants
- 2018: First research projects with VIB
- 2019: R&D site opened in Flanders
- 2021: Expansion of greenhouse operations to the VIB agro-incubator
- 2025: Fully established in Flanders, with proprietary greenhouse R&D facilities

#### zymofix

## Scaling its beneficial microbes for agriculture

- 2022: Local start-up supported by Biotope by VIB, using biomass residues to cultivate beneficial microorganisms
- 2023: Access to offices, labs and greenhouse space in VIB's agroincubator
- 2024: Additional funding secured;
   expanding activities in agro-incubator





#### **RAINBOW CROPS**

#### Launching new VIB Agtech spin-off

- ERC funded research at VIB results in a breakthrough crop engineering technology
  - Technology scaled up through VIB's agro-incubator automated phenotyping capabilities
  - 2025: Rainbow Crops launched, combining multiplex genome editing, breeding and AI to engineering complex traits in crops





## Optimizing ovarian cancer therapy with in-house HRD test

## VIB-KU Leuven & UZ Leuven developed HRD test

- PARP inhibitors can prevent relapse of ovarian cancer after surgery and chemotherapy
- Only HRD+ patients benefit from PARPi therapy (50% of patients)
- HRD test to identify responders / nonresponders to PARPi



Prof. Diether Lambrechts

VIB-KU Leuven Center for Cancer Biology



Prof. Dr. Toon Van Gorp KU Leuven, UZ Leuven

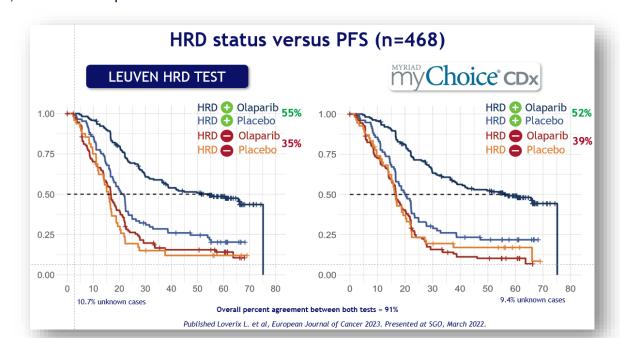
**HRD**: Homologous Recombination Deficiency test

#### European alternative for US test

- Myriad's MyChoice® CDx: gold standard FDA approved test (since Oct 2019)
- Leuven HRD test: cost-effective, rapid results, GDPR- compliant

## Reimbursed and available for Belgian patients

- Est. >90% of all HRD tests in Belgium performed with Leuven HRD test
- In 2024, over 400 patients tested across Belgium



# OPENPichia® strains — Open, industry-ready *Pichia* chassis for recombinant protein production

VIB's long-standing expertise in Pichia

- Two decades of pioneering work in Komagataella phaffii engineering by the Nico
   Callewaert Lab
- Advances in glyco-engineering, secretion pathways & strain optimization
- Numerous peer-reviewed publications and industrial collaborations



OPENPichia® strains and toolkits

- Licence-free type strain & engineered HOC1<sup>tr</sup> strain
- Improved transformability & secretion for selected proteins
- Equivalent or higher titers at bioreactor scale vs. parental strain
- Modular MoClo toolkit for fast, multi-gene construct assembly
- Open access licensing for academia & industry



**OPEN Access for everyone** 

- OPENPichia® removes licensing barriers and accelerates recombinant protein programs.
- OPENPichia® and the MoClo toolkit provide a flexible, accessible platform for academic labs and biotech companies.
- Rapid global adoption (>80 orders)
- First clinical/agriculture/food proteins in development



# The impact: Industry collaboration set up by VIB's BD team fuels future basic research & tech transfer



### VIB's Business Development team



Jan Staelens Head Contracts and Alliances



**Erwin Sablon**Head Business
Development



Griet Verhaegen
BD Manager
Inflammation



Koen Tyberghein
BD Manager
Medical Biotech/
Inflammation



Vincent De Maesschalck
BD Manager
Structural Biology/
Medical Biotech



Thijs Vackier
BD Manager
Microbiology



Sofie Coelus BD Manager Technologies



Yadira Olvera Carillo
BD Manager
Plant Systems Biology



Michiel Bontinck
BD Manager
Plant Systems Biology



Veerle Daniels
BD Manager
Oncology



Laura Lapienyte
BD Manager
Neurology



Karin Lemmens
Assistant
Innovation & Business



**Ethan Kuo** Business Analyst



**Isabel Hess**Contract Manager



Goedele Dedeurwaerder
Contract Officer



Jiska van der Reest BD Catalyst Oncology, I&I



Ana Rita Santos
BD Catalyst
Neurology



Nathalie Strybol
Sr Assistant
Innovation & Business

### Ethan Kuo - career journey

**2012-2019** 





- MSc & PhD; background medical biochemistry x chemical biology
- Publication-driven (12 publications, 4 co-authored)
- Niche topic and technical skillsets
- Started networking for career advancement (incl. Biobusiness Summer School 2019)



**2019-2020** 

#### Academic/Industry hybrid scientist (uniQure, Amsterdam)



- Postdoc scientist in a research collaboration
- Preclinical study in AMT-191 (now Ph 1)
- COVID hit

**2021-2023** 

#### **Venture capital analyst** (V-Bio Ventures)



- Moved to Belgium (with young family) to work at a VC firm
- Screened 400+ deal opportunities
- Contributed to the investment of 4 startups (Corteria, Astrivax, Sibylla, Flindr)

2023-present

#### Business development manager (VIB)



- Business analysis on valorisation potential for early projects (particularly on BD opportunities)
- Other activities: supports a Horizon Europe Teaming for Excellence project (RACE), ecosystem-building
- MBA (Valar by Quantic)

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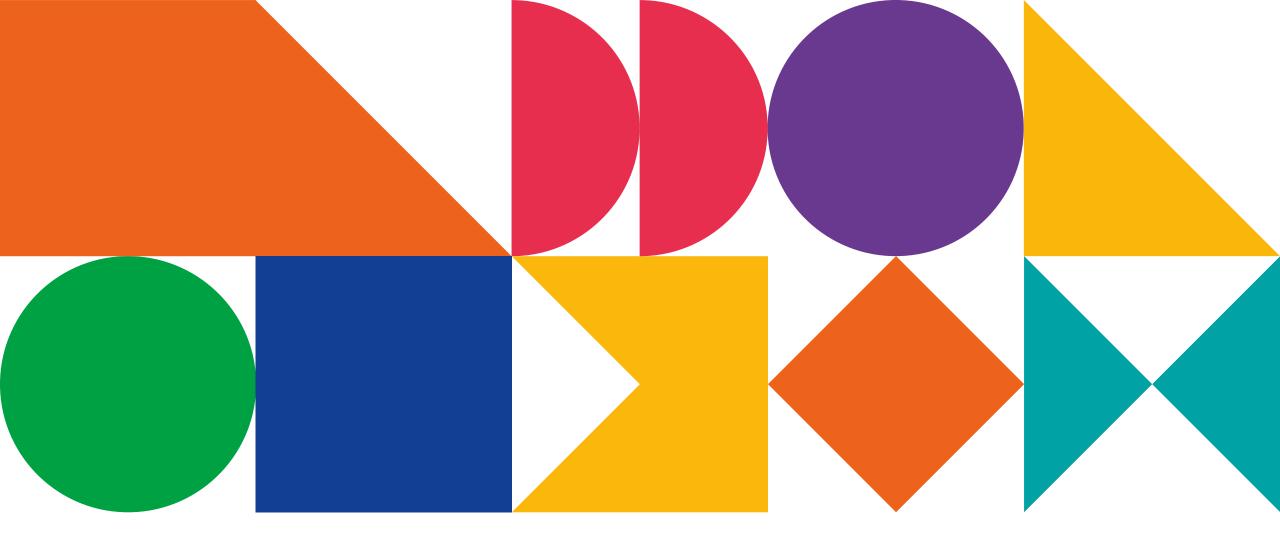
- Strong drive to turning innovative research programs into societal benefits
- Proven expertise and credibility in relevant scientific domains and/or in industry
- Proactive learner in science, business know-how, and people skills



Excellence in Life Science Research

Excellence in Entrepreneurial Biotech

Acceleration in our Biotech Ecosystem





Ethan Kuo, BD Manager VIB https://www.linkedin.com/in/chi-lin-ethan-kuo/

