Nanoform Capital Markets Day

June 4th, 2021

14.00-16.00 Helsinki time

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Disclaimer

Forward-Looking Statements

This presentation may contain forward-looking statements, including, without limitation, statements regarding Nanoform's strategy, business plans and focus. The words "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "project," "potential," "continue," "target" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward-looking statements in this presentation are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this presentation, including, without limitation, any related to Nanoform's business, operations, clinical trials, supply chain, strategy, goals and anticipated timelines, competition from other companies, and other risks specified in Nanoform's prospectus published (on May 22, 2020) in connection with Nanoform's initial public offering (the "Prospectus") under "Risk Factors" and in our other filings or documents furnished to the Finnish Financial Supervisory Authority in connection with the Prospectus. Nanoform cautions you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made. Nanoform disclaims any obligation to publicly update or revise any such statements to reflect any change in expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements. Any forward-looking statements contained in this presentation represent Nanoform's views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date.

Agenda – all presentations in real time!

1. **Prof. Edward Hæggström** CEO

2. **Miguel Calado** Chairman of the Board

3. **Live Tour:**

Dr. Niklas Sandler *Chief Technology Officer*

Tuomas Puranen *Process Engineer*

Director Antonio Da Silva *Quality Control Director*

Dr. Eric Kissi *Quality Control Scientist*

Dr. Satu Lakio *Director Pharmaceutical Development*

Dr. David Rowe *Head of Manufacturing*

Peter Blackburn *Manufacturing Operations Manager*

Rossella Dal Maso *Production Team Leader*

Marco Minerva *Operational Excellence Specialist*

4. **CCO Christian Jones** Commercial & Team

5. **Mike Rea** Strategic Innovation Advisor

6. **Dr. Maria Lume** Biologics

7. **Dr. Elisabetta Micelotta** STARMAP®

8. **CFO Albert Hæggström** Finance

9. *Q&A*

10. **CEO Prof. Edward Hæggström** Closing remarks

Prof. Edward Hæggström
CEO

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Nanoform 12-month rapid progress

June 4th, 2020

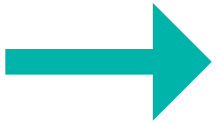
50 employees

9 nationalities based in **4** countries

18 PhD's

7 manufacturing lines

6 customer projects started



June 4th, 2021

100 employees and growing

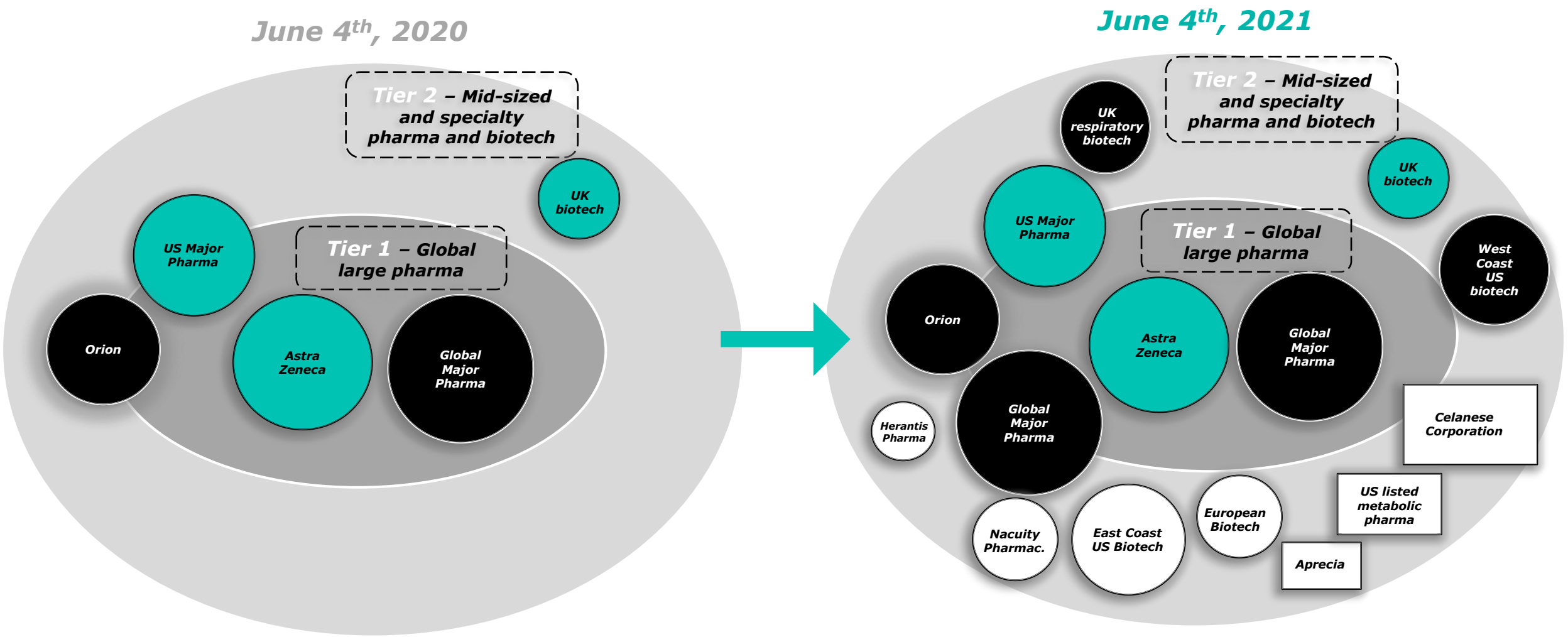
23 nationalities based in **6** countries

32 PhD's

12 manufacturing lines

18 customer projects started

Nanoform Clients & Collaborations



Nanoform Global Commercial Team

June 4th, 2020

Cambridge
Chief Commercial Officer
Christian Jones

Helsinki
Commercial Associate
Britta Madison

Lisbon
Chief of Business Operations
Dr. Gonçalo Andrade

June 4th, 2021

Chicago
Vice President Business Development
Sergie Letser

New York
Vice President Business Development
Eric Peter

San Diego
Vice President Business Development
Dr. Chris Worrall

Cambridge
Chief Commercial Officer
Christian Jones

Helsinki
Commercial Associate
Britta Madison

Oxford
Commercial Insights Officer
Dr. Jamie Unwin

Lisbon
Chief of Business Operations
Dr. Gonçalo Andrade

Commercial team past experience:

Johnson Matthey · Hovione · Janssen · Merck · GlaxoSmithKline · Dr. Reddy's · Elan · GE · Sigma-Aldrich · Bioalvo · Clarke Modet · Porton · Biocon · Cambridge Major Laboratories · Patheon by Thermo Fisher Scientific · Prosonix

Nanoform new mid-term business targets 2025

>70
new APIs per year

+40%
vs previous target (>50)

35 lines of which 7-14 are GMP compliant

+40%
vs previous target (25; 5-10 GMP)

200-250
employees

Up 0-25%
vs previous target (~200)

>90%
gross margin

Unchanged

Cash flow positive

Unchanged

API = Active Pharmaceutical Ingredient
GMP = Good Manufacturing Practice

Miguel Calado
Chairman of the board

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Live Tour

1. Research & Development	***Dr. Niklas Sandler** Chief Technology Officer*
CESS® Technology	***Tuomas Puranen** Process Engineer*
2. Quality Control	***Director Antonio Da Silva** Quality Control Director*
Solid State Characterization	***Dr. Eric Kissi** Quality Control Scientist*
3. Pharmaceutical Development	***Dr. Satu Lakio** Director Pharmaceutical Development*
4. GMP Manufacturing	***Dr. David Rowe** Head of Manufacturing*
GMP Nanoform Line and Personnel airlock	***Peter Blackburn** Manufacturing Operations Manager*
Materials Storage, Sampling, Dispensing	***Rossella Dal Maso** Production Team Leader*
Tiered Accountability Process	***Marco Minerva** Operational Excellence Specialist*

Christian Jones
Chief Commercial Officer

Commercial

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Britta Madison

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Commercial Insights Officer
Dr. Jamie Unwin

Cambridge
Chief Commercial Officer
Christian Jones

- **Experienced global sales team driving momentum and the shift in company focus from technology development to commercialization**

Nanoform unlocks possibilities for patient-centric innovation

Adherence to long-term therapy for chronic illnesses in developed countries averages

50%

In developing countries, attrition rates are

lower

Setting the North Star
Nanoforming empowers the adoption of "North Star TPPs" that meet patient demands from the start of development. True patient-centric innovation need not be the provision of the fast-follower…

…Greater choice
Decreased NCE/NBE attrition to accelerate development of next generation therapeutics

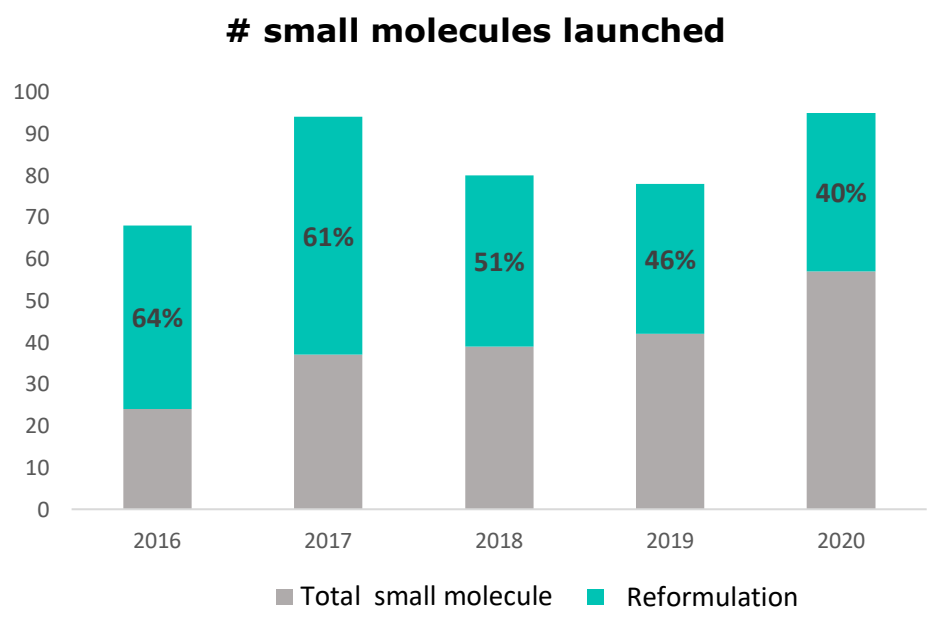
…More empowerment
Novel administration options that align with patient preferences to put them in control of their medicine journey

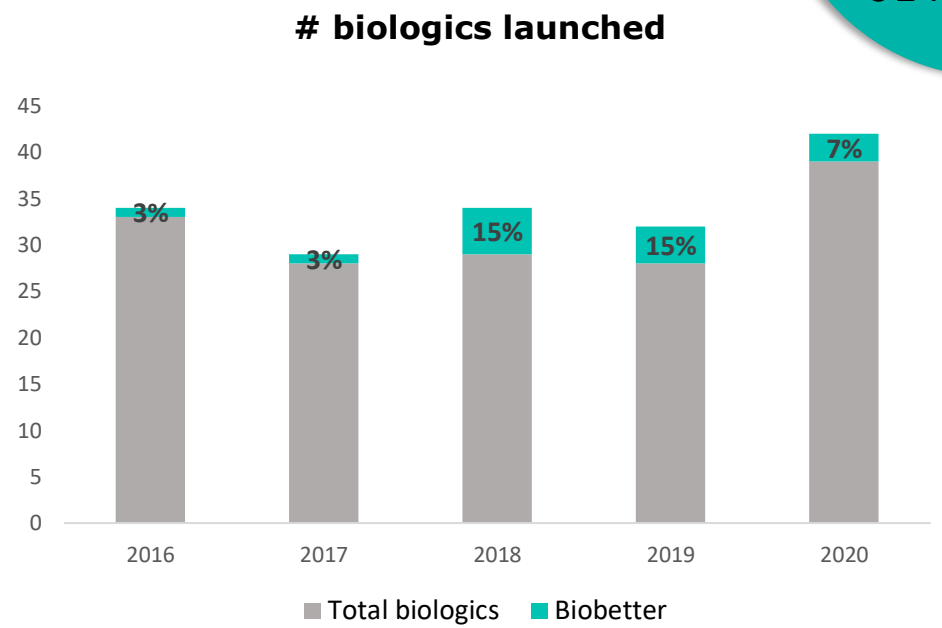
…Improved compliance
Potentially reduced AEs, improved toxicity and modulated release profiles to improve outcomes

A platform technology which addresses an evolving market

Small Molecule % Global Sales

2012	2026
61%	45%





New launch "balance" increasingly weighted towards NCEs and away from re-formulations, but the reformulation market represents a large volume opportunity

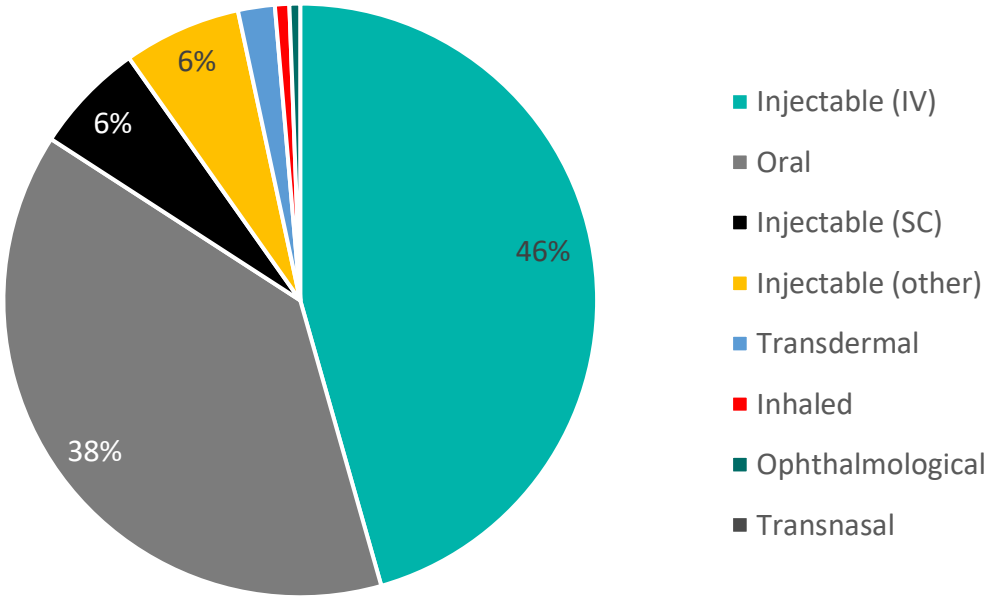
Although currently a small amount, we expect to see more "Biobetters" reach the market through the next decade as blockbuster biologics approach LoE and biosimilar players seek to differentiate

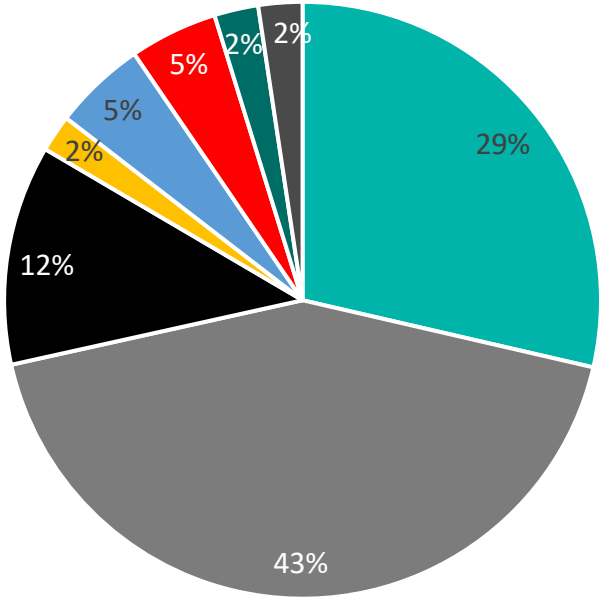
Source: PharmaProjects (Infoma) accessed May 2021. Analysis includes All molecules, irrespective of geography since 2016. "Launch = first approval in first country"

We know where opportunity is
and how our technology can support it…

NxEs
n=554

Preference for innovators to pursue "tried and tested" oral and IV routes





Reformulations
n=42

More heterogeneous approaches adopted

Strategic approach

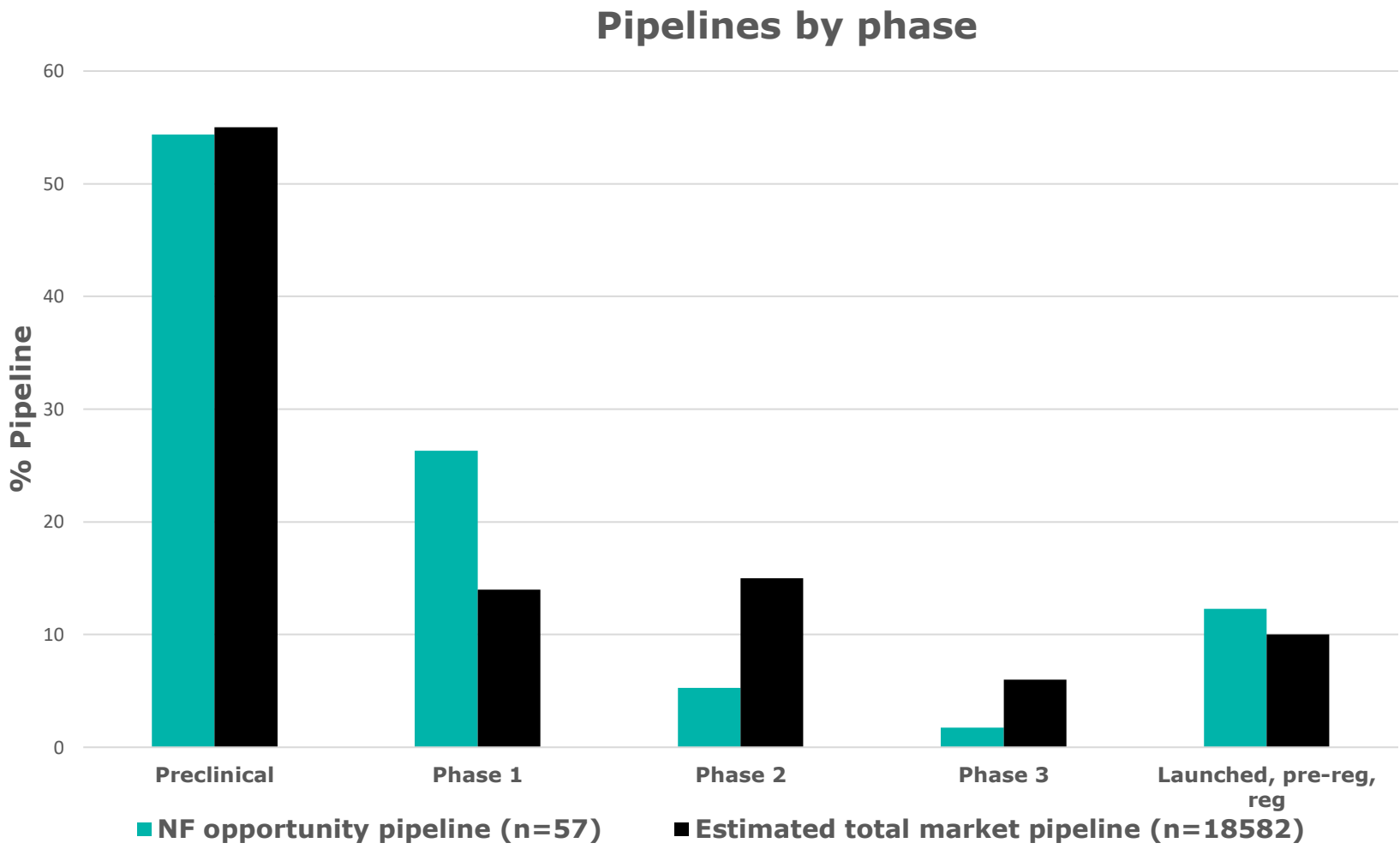
Increase PoS in customer-preferred routes while fostering confidence to set a patient-centric North Star TPP from the start

Encourage new, and de-risk ongoing patient-centric re-formulation programmes

Source: PharmaProjects accessed May 2021. All molecules entering preclinical or Phase I development since Jan 2019. "Non-disclosed" routes of admin excluded

YTD Opportunities by Clinical Phase n=57

NF opportunities **closely mirror the market** in terms of development phase with **most emphasis** on tackling solubility/bioavailability issues in **preclinical and phase 1** and adding value to marketed products in **lifecycle extension and drug reformulation**



Small is a platform enabler across drug delivery

Rapid absorption of poorly soluble Piroxicam

Quotient Sciences

Localised lung delivery

UK Respiratory Biotech

NPI-001 and NPI-002 enhanced ocular tissue penetration

NACUITY PHARMACEUTICALS, INC

Oral Tablet | **Oral Buccal** | **Respiratory** | **Nasal** | **Ophthalmics** | **Co-Polymer Drug Delivery**

APRECIA THE 3DP PHARMACEUTICAL COMPANY®

Rapid absorption of poorly soluble, coupled with fast disintegrating ODT

HERANTIS PHARMA

Nasal delivery of CDNF for brain penetration

Celanese The chemistry inside innovation™

Sustained release delivery

Mike Rea

Nanoform
- Strategic Innovation Advisor

CEO, IDEA Pharma

An overview of the opportunities in biologics

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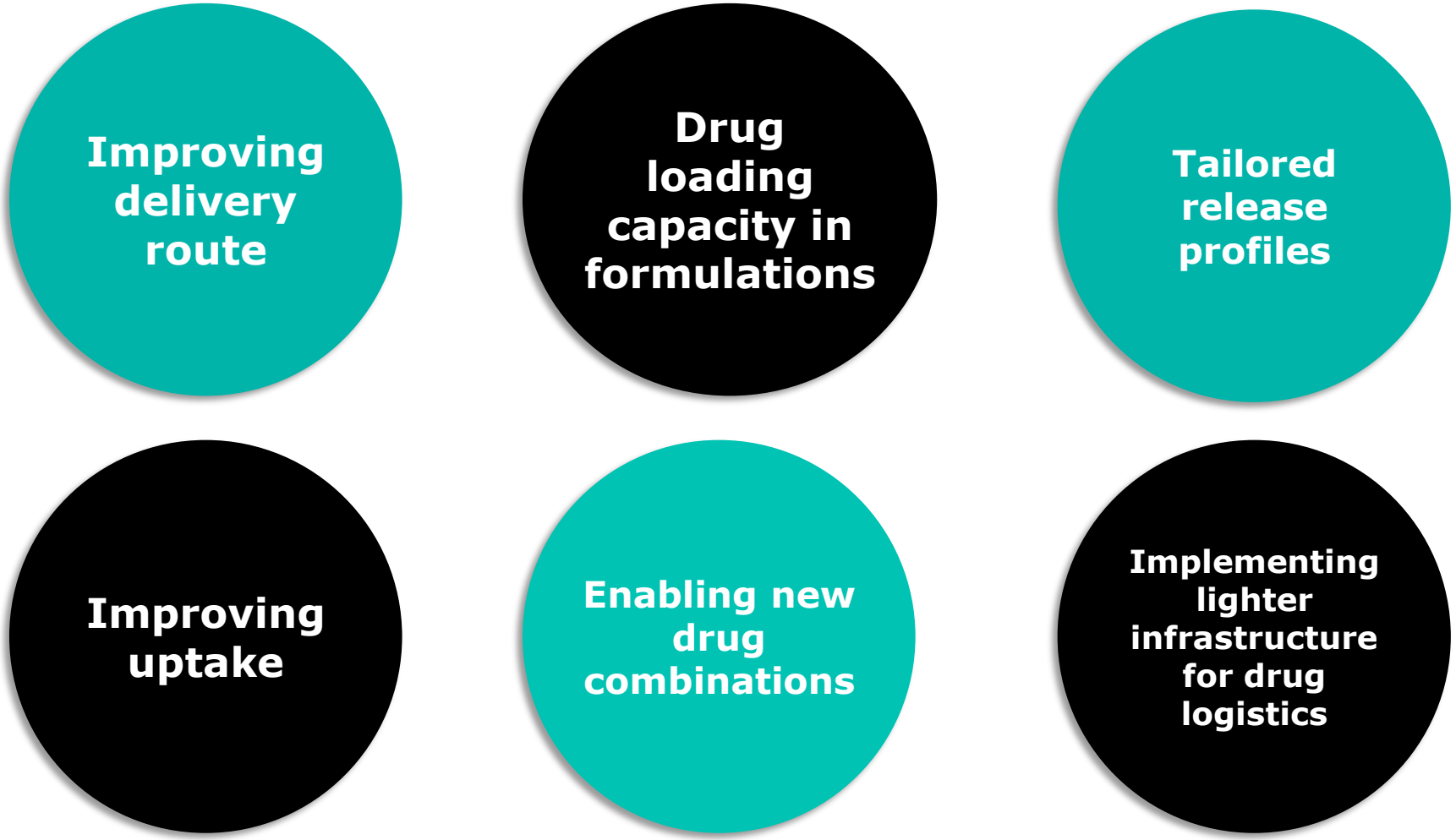
Nanoforming a potential game-changer in Biologics too



Dr. Maria Lume
Biologics Team Leader

Processing of biologics at Nanoform

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The BIO team

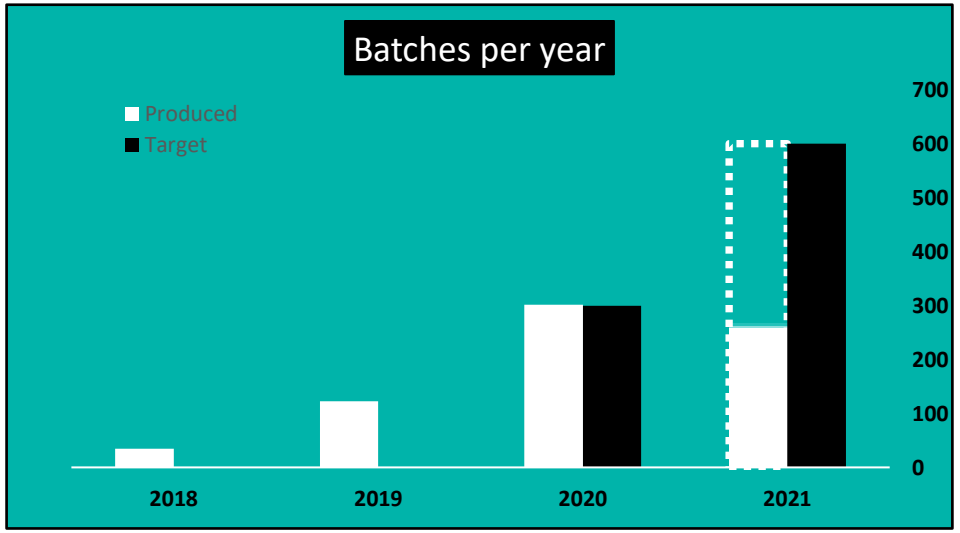
- **Production of bio-nanoparticles**
- **Formulation of bio-nanoparticles**
- **Characterization and qualitative analysis of the bio-nanoparticles**

Nanoforming biologics

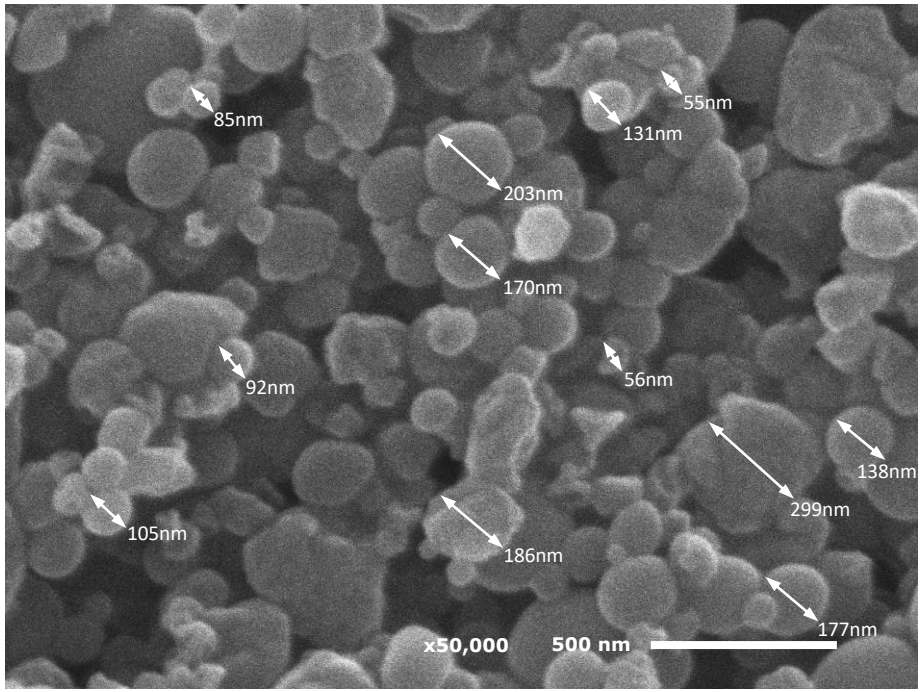
Gentle, bottom-up process

So far used for processing peptides and proteins ranging from 6 to 140 kDa in size (range expanded from 6 to 66 kDa during Q2/2021)

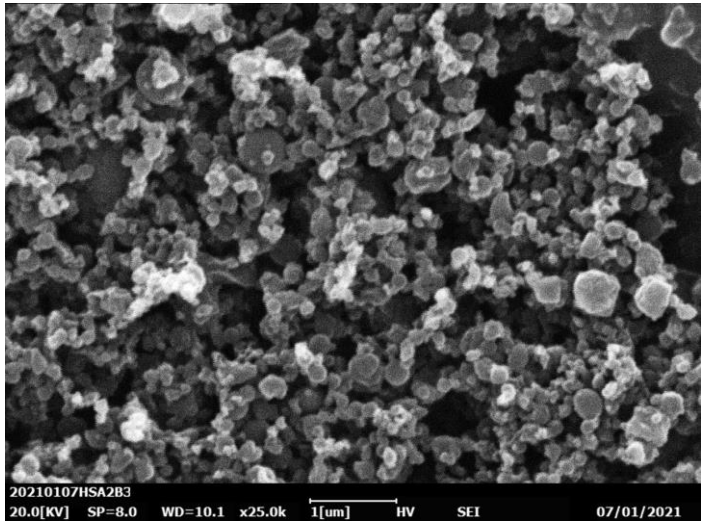
Nanoparticles as small as 50 nm are produced

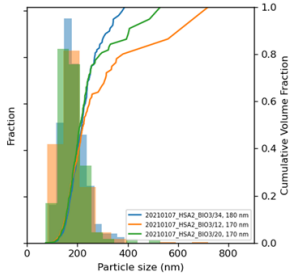


Nanoparticles of biologics

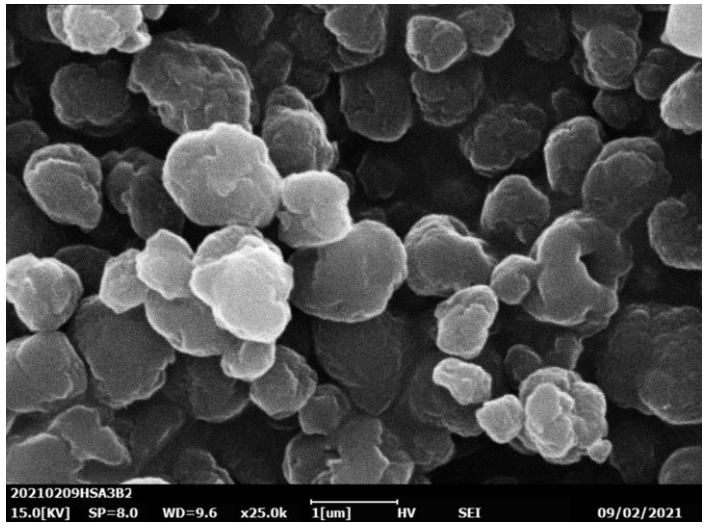


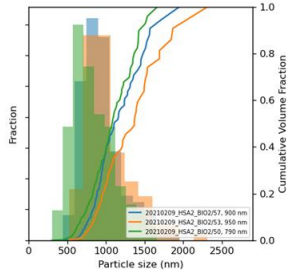
Tuning the particle size of HSA



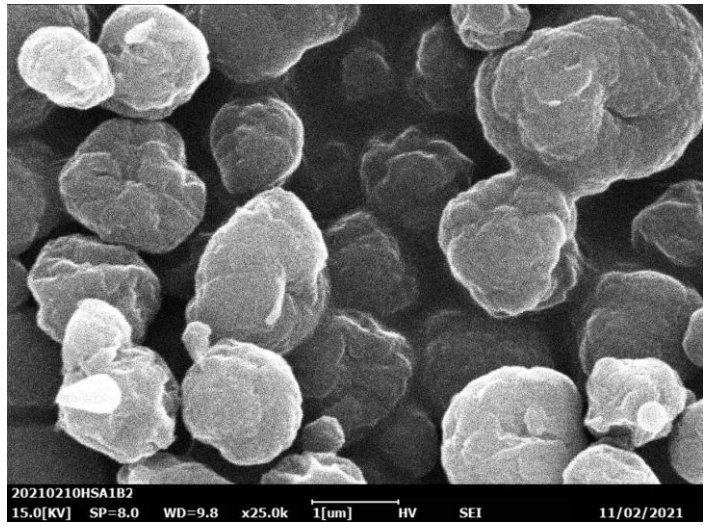


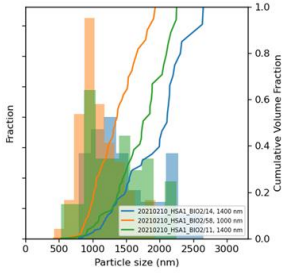
D50=178 nm



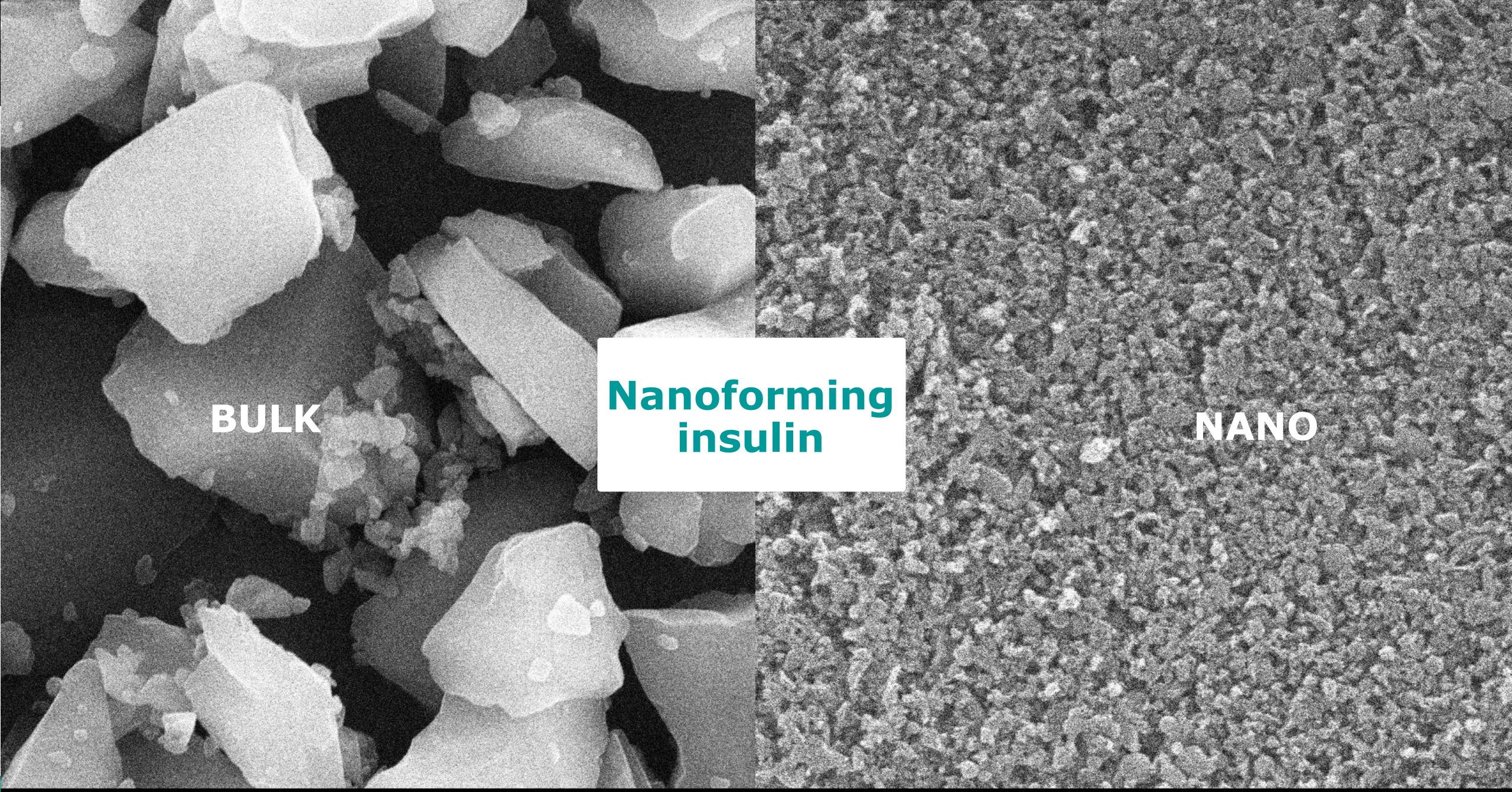


D50=786 nm



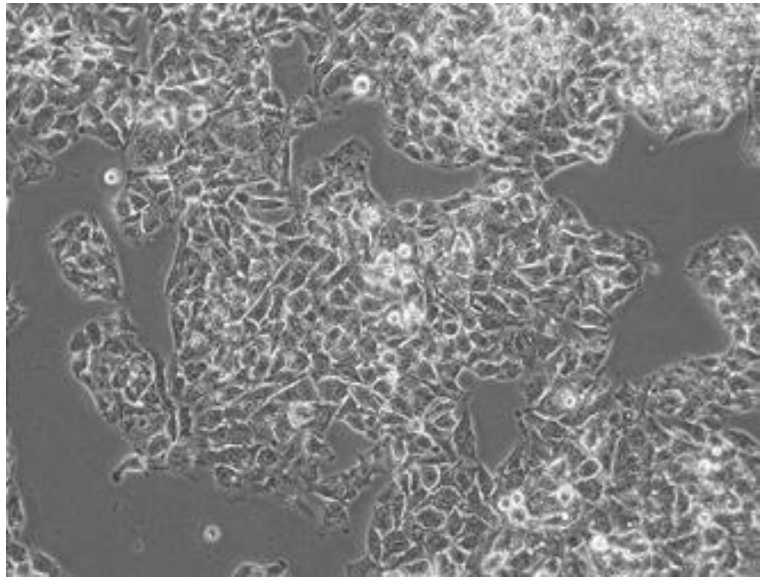


D50=1360 nm


BULK
Nanoforming insulin
NANO
WD=10.3 x5.0k 10[um] HV SEI
02/ SP=7.0 WD=10.0 x10.0k 1[um] HV SEI

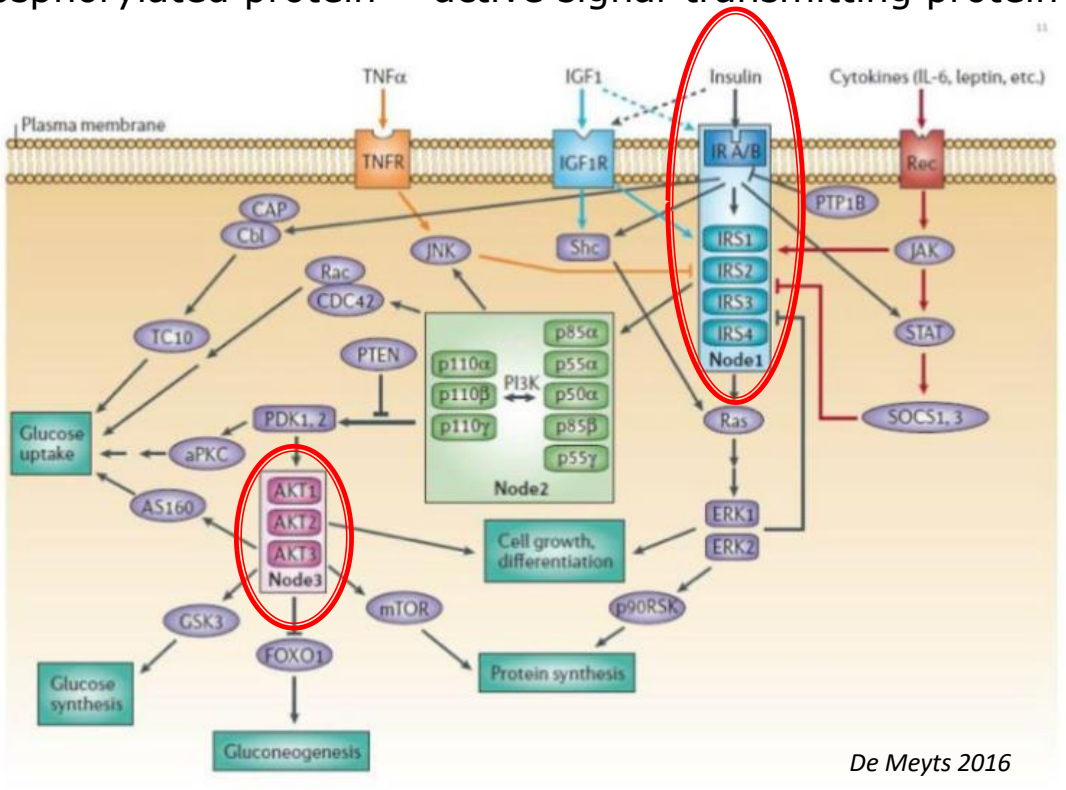
Assessment of insulin activity in cellular assays

The activity of bulk unprocessed insulin and nanoformed insulin was compared *in vitro*, using HepG2 cell-line



HepG2 cells on a dish

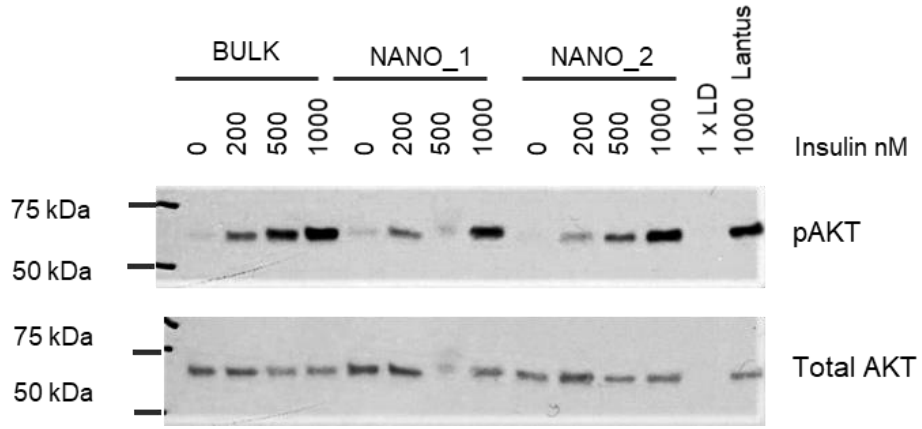
Upon activation, protein's phosphorylation levels change
Phosphorylated protein = active signal-transmitting protein



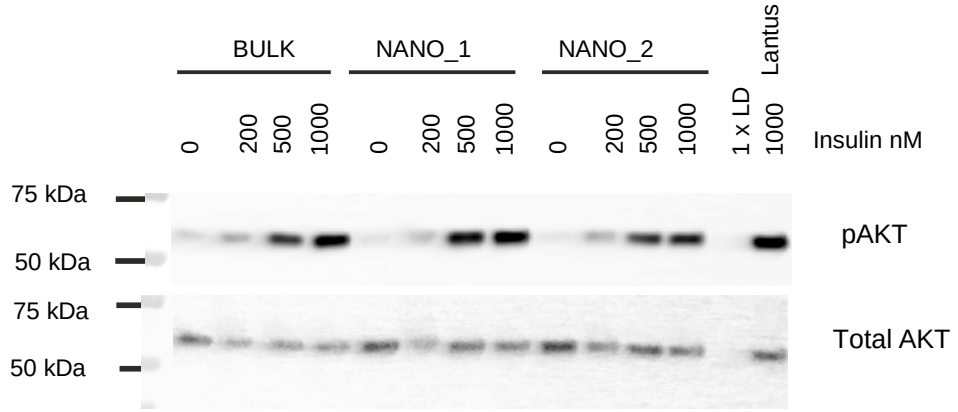
pAKT was used as a read-out for the insulin activity assay

Processed insulin 1-month stability assessment

Fresh samples



1-month old processed samples



- Both unprocessed and processed insulin activate IR and the downstream pathways
- Nanoformed insulin is active after 1 month at + 4°C

LDH – Lactate dehydrogenase

Lactic dehydrogenase

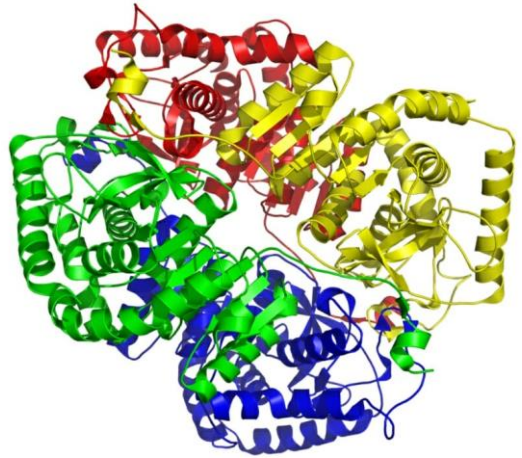
Comprises of 4 subunits, molecular weight 140kDa

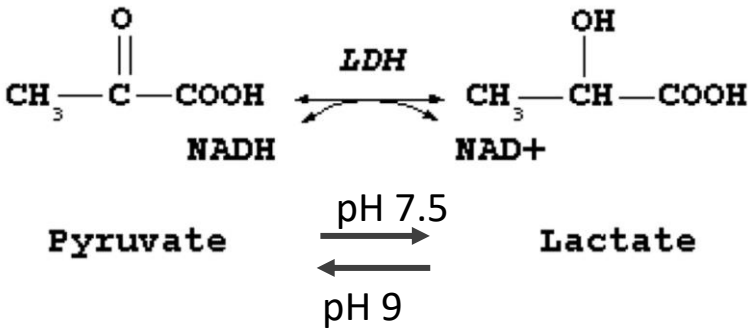
LDH catalyses the interconversion of pyruvate and lactate.

Highly sensitive to shear and temperature

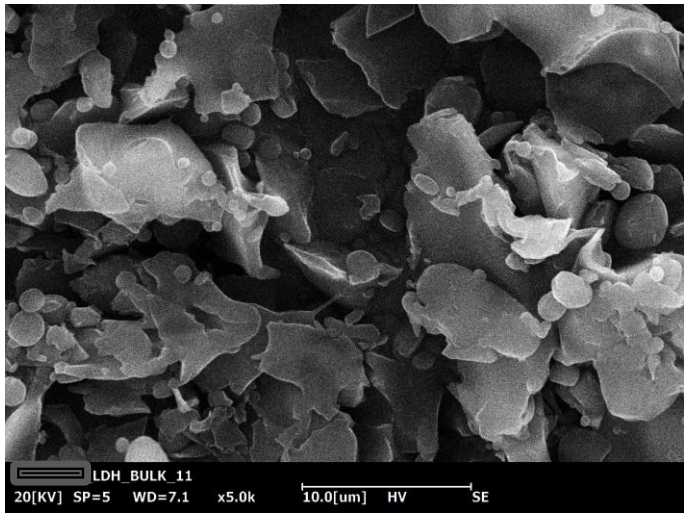
Used to evaluate the presence of damage and toxicity of tissue and cells.

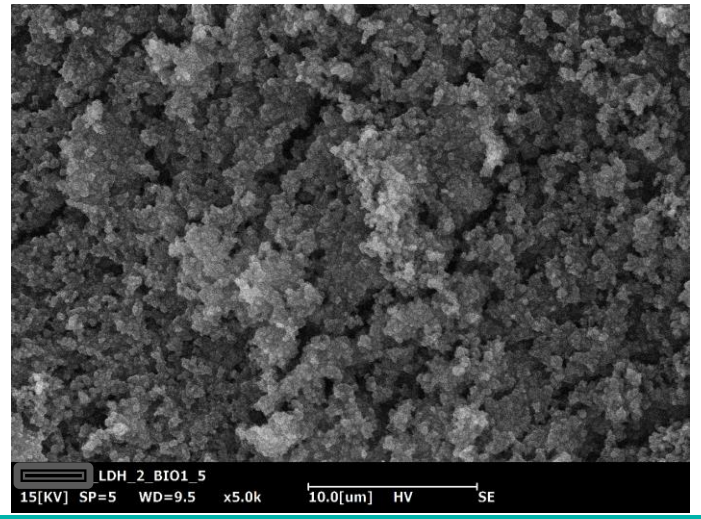
LDH is elevated in certain pathological conditions such as cancer

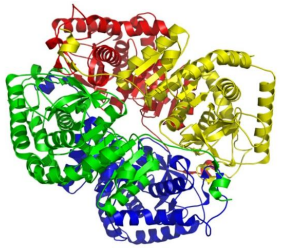


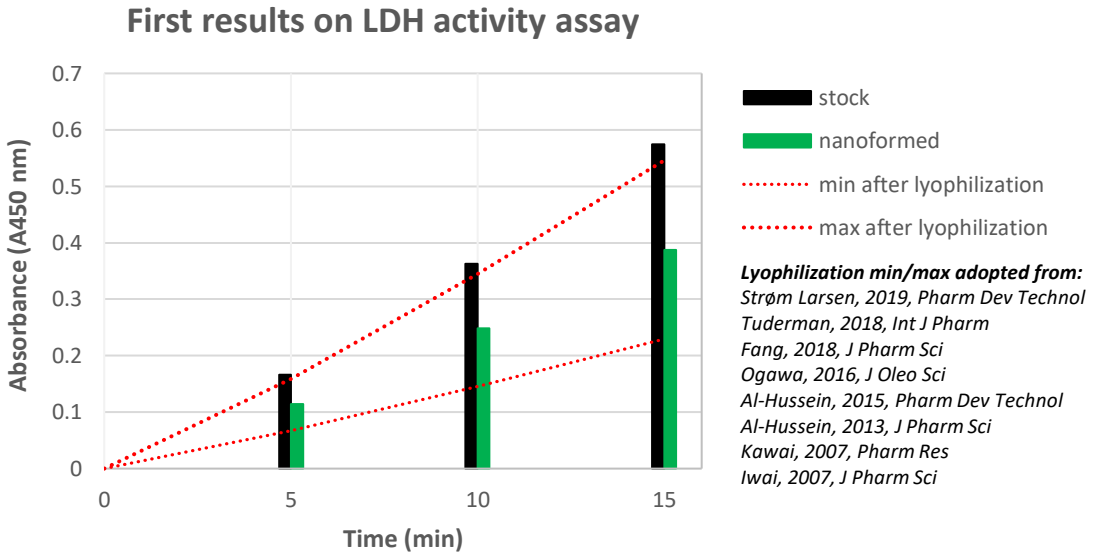


Assessing LDH size and retained activity









Lyophilization min/max adopted from:
Strøm Larsen, 2019, Pharm Dev Technol
Tuderman, 2018, Int J Pharm
Fang, 2018, J Pharm Sci
Ogawa, 2016, J Oleo Sci
Al-Hussein, 2015, Pharm Dev Technol
Al-Hussein, 2013, J Pharm Sci
Kawai, 2007, Pharm Res
Iwai, 2007, J Pharm Sci

The activity assay depicts the conversion rate from lactate to pyruvate (Concentration of NADH)

Future prospects

small is powerful®

Building of additional lines to support commercial projects.

Broadening the product portfolio capabilities e.g., by processing antibodies etc.

Supporting expansion towards GMP for biologicals.

Nanoform the stars that will shine the brightest with…

starmap 2.0®

Illuminating the future of Pharma

Dr. Elisabetta Micelotta

Science & Technology Team Leader

starmap 2.0 Illuminating the future of Pharma ® Explained

Nanoform's cutting-edge sparse-data AI platform identifies winners (molecules):

- Molecules predicted to be **best amenable** to **CESS®-powered nanoforming**.
- Molecules that exhibit **optimal production characteristics**.

Potential new opportunities for our pharma partners:

- **Revisiting drug candidates** unnecessarily discarded by AIs trained on old particle engineering techniques.
- Rapidly **picking winners** among **new drug** candidates.

The process

If insufficient amount of data

↓

No specific predictions possible

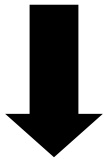
↓

Help from sparse-data AI

STARMAP® 2.0: Experimental results **augmented** with **detailed expert knowledge**

↓

Sensible **predictions** regarding **drug development success**

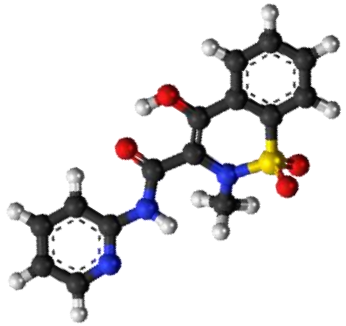


Digital version of CESS® technology

- **Large number of *in-silico* experiments to make predictions of nanoformability.**
- **Exploration of the huge number of potentially available drug molecules.**

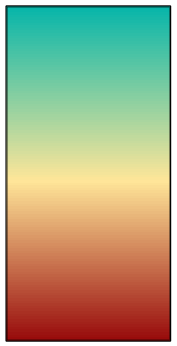
Inputs and outputs

Input molecule

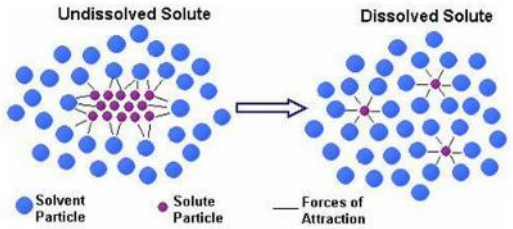


Solubility in sc-CO_2

High



Low



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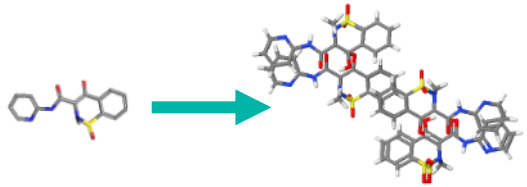
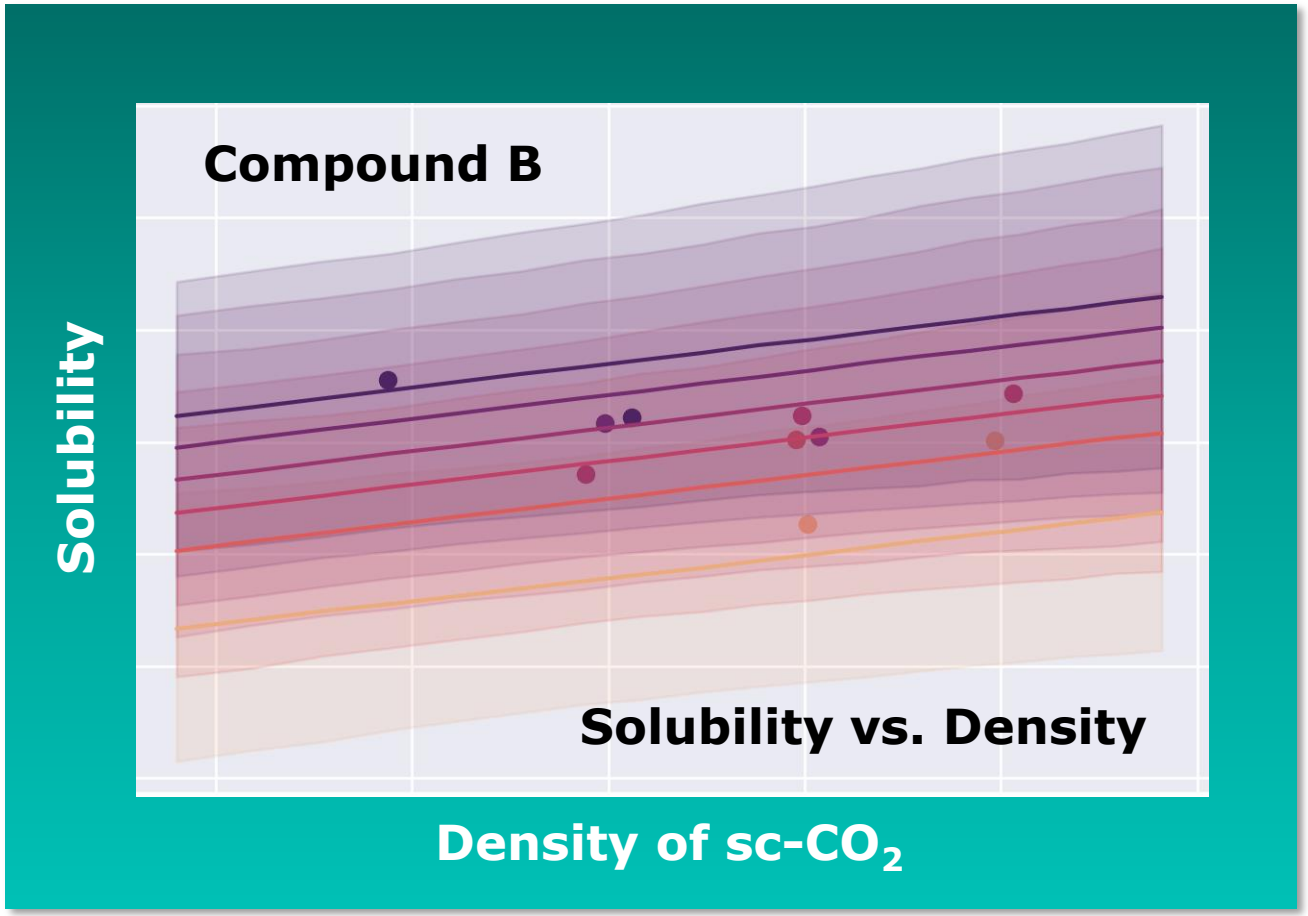


Propensity to crystallize

* Prof. Louis Messerle, Chemistry Department, University of Iowa

Solubility Prediction in sc-CO_2



Very good match between predictions & measurements

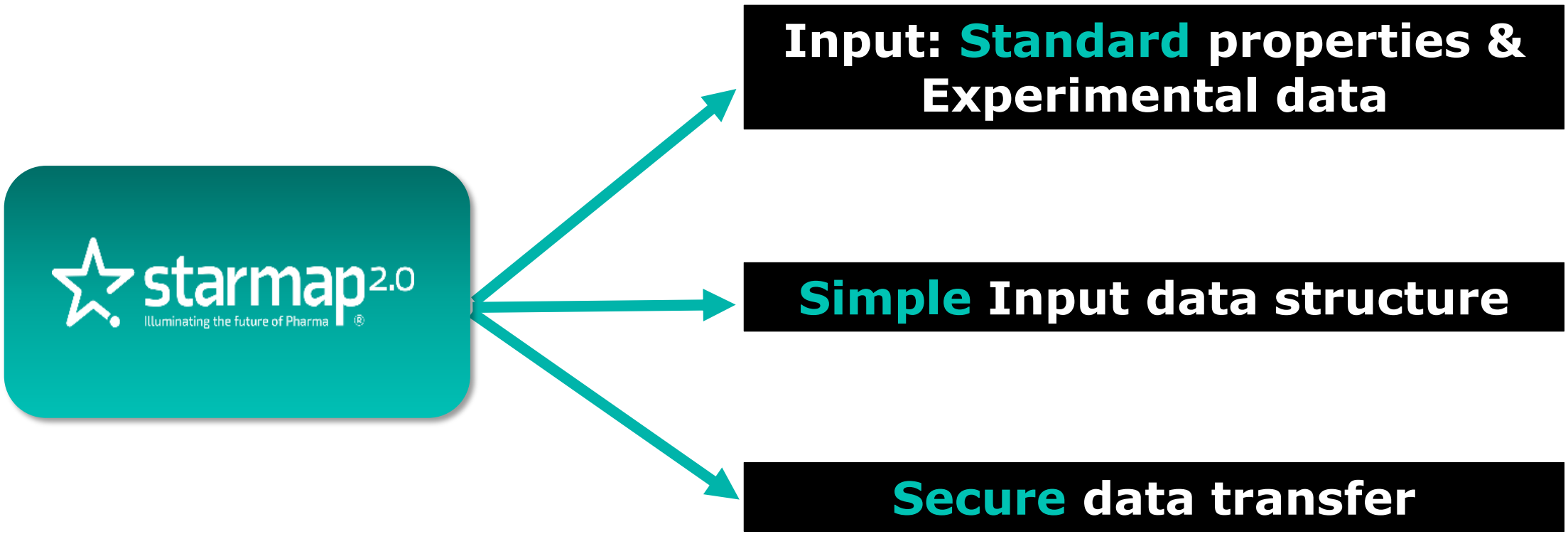
Solid lines → Solubility predictions.

Filled circles → Solubility measurements.

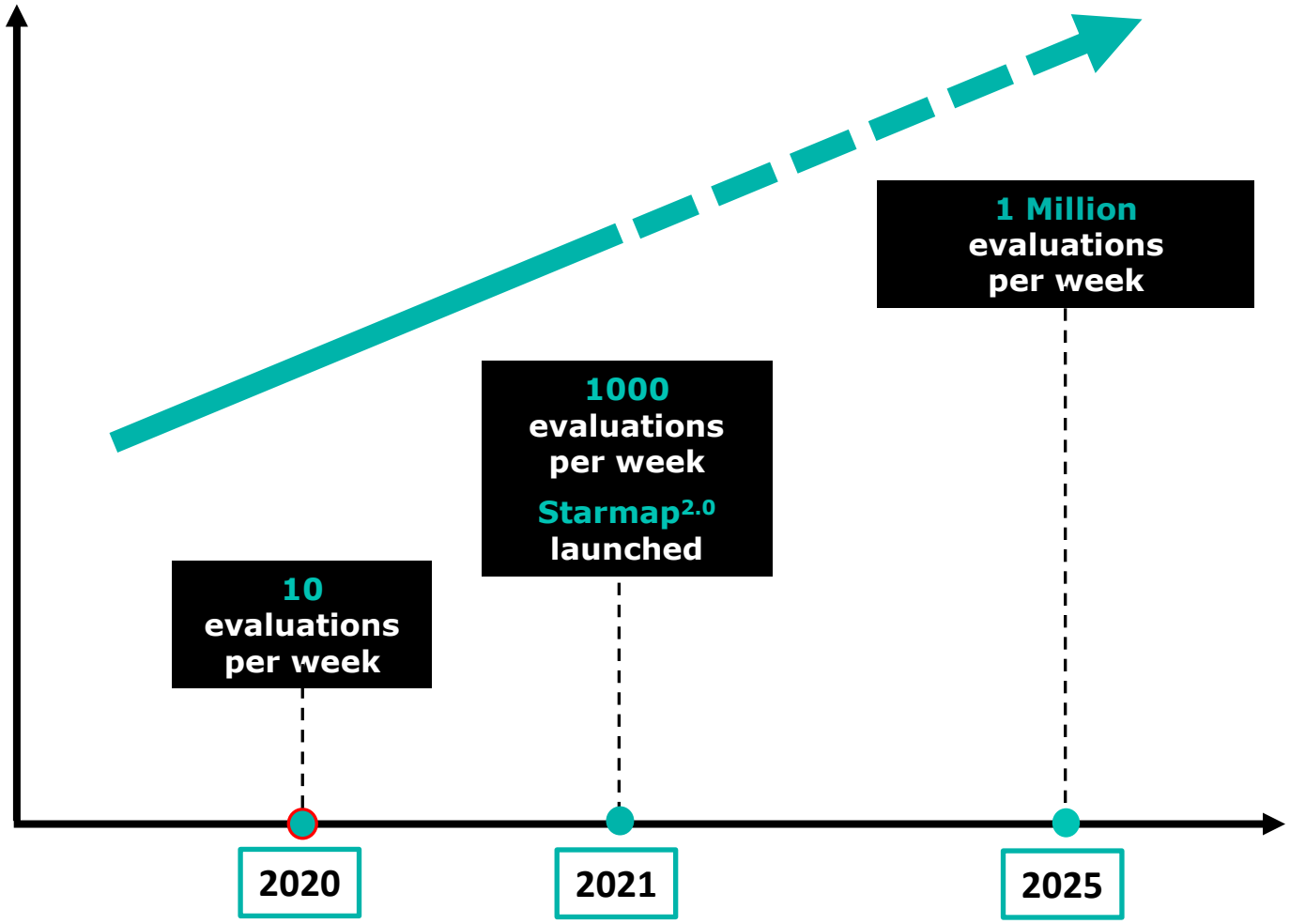
Shaded areas → Uncertainty in predictions.

Different colors → Different temperatures of CO_2

starmap 2.0 Illuminating the future of Pharma ® Required Data & Data Structure



starmap 2.0 Illuminating the future of Pharma ® A continuous growth



Expert knowledge + Artificial Intelligence

↓

Growth

Albert Hæggström
Chief Financial Officer

nanoform
small is powerful®

Nanoform is here to fill the gap

Giving unsuccessful drug candidates a second chance

>58 000 failed drugs in the last 40 years

Improving existing drugs

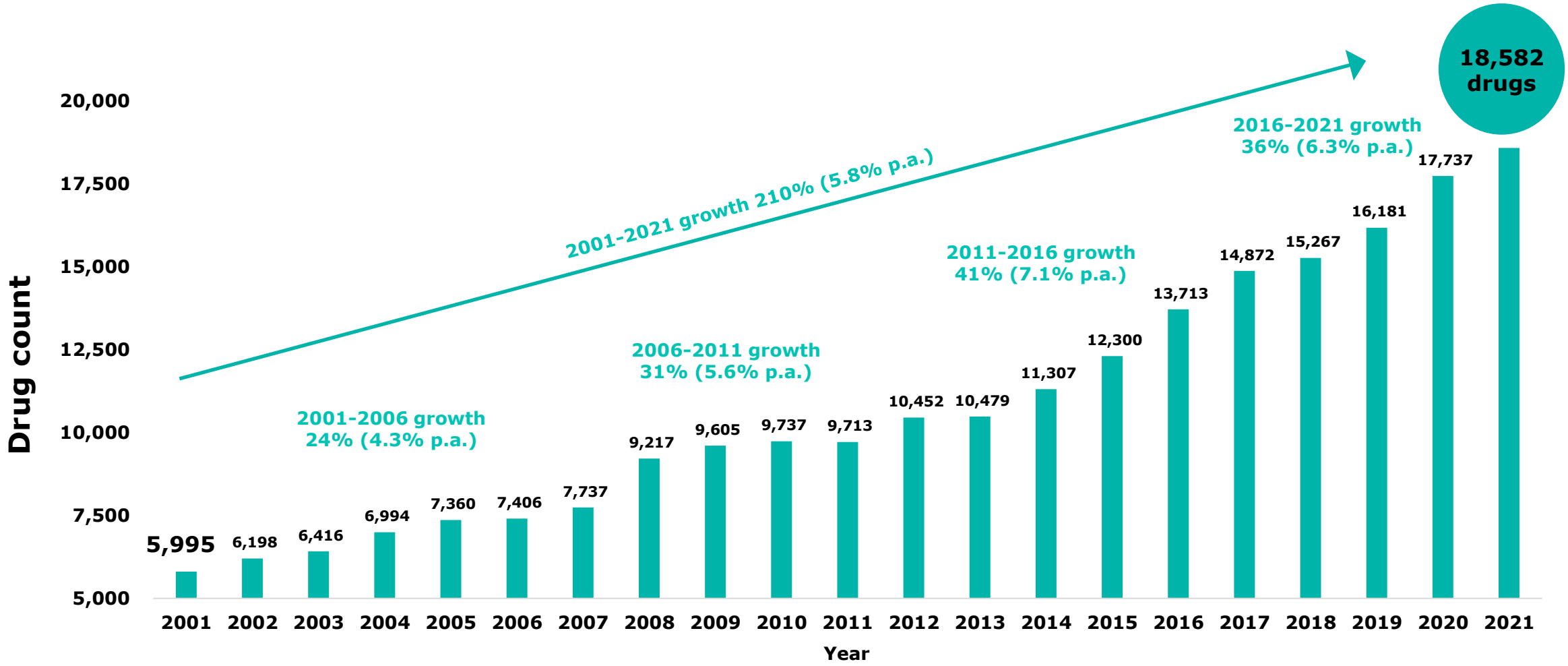
>5 800 existing drugs

Enabling new drugs

>18 000 drugs in development

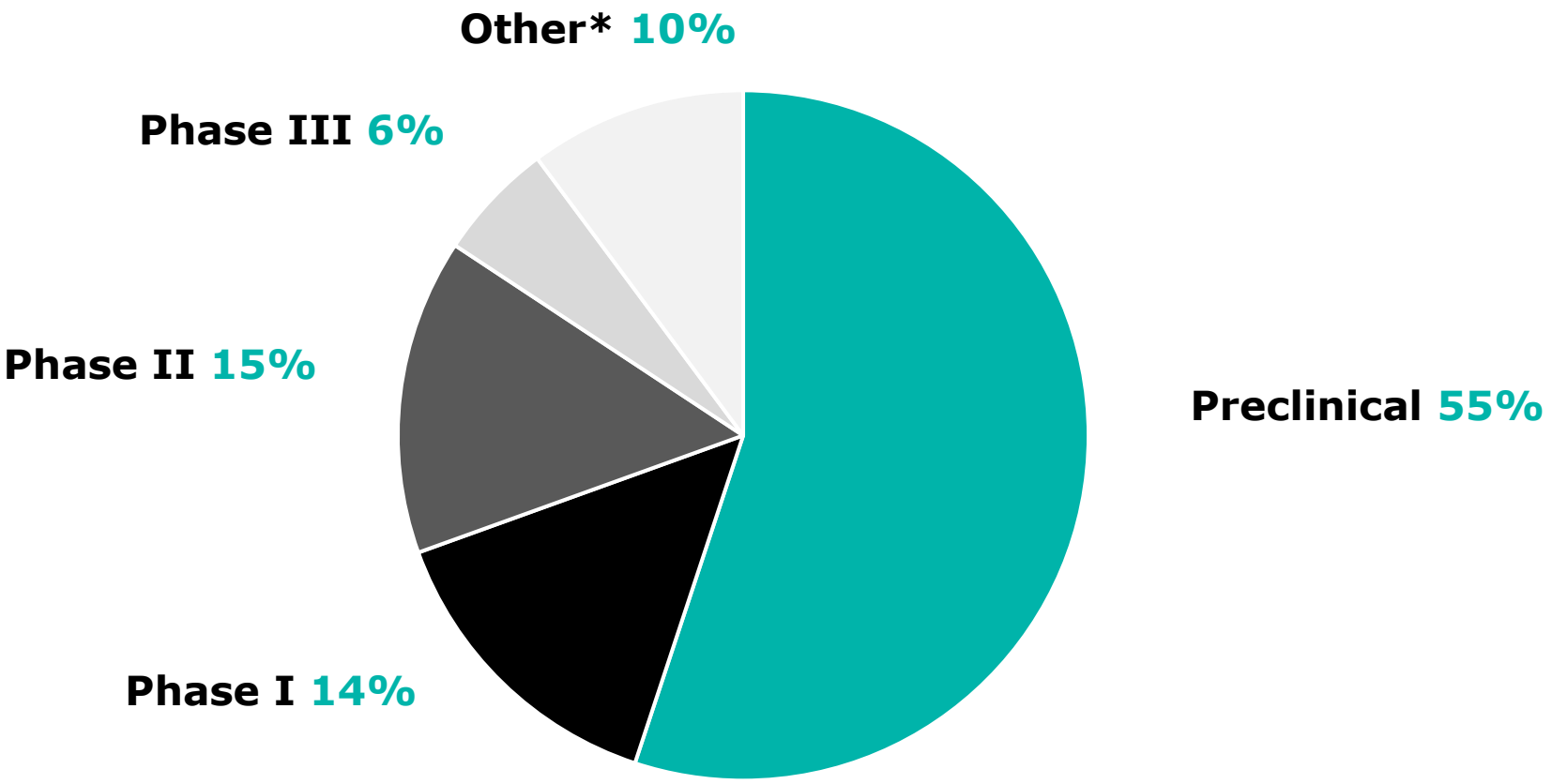
Source: Nanoform and Pharmaprojects® | Informa, 2021

Global drug R&D pipeline size and growth



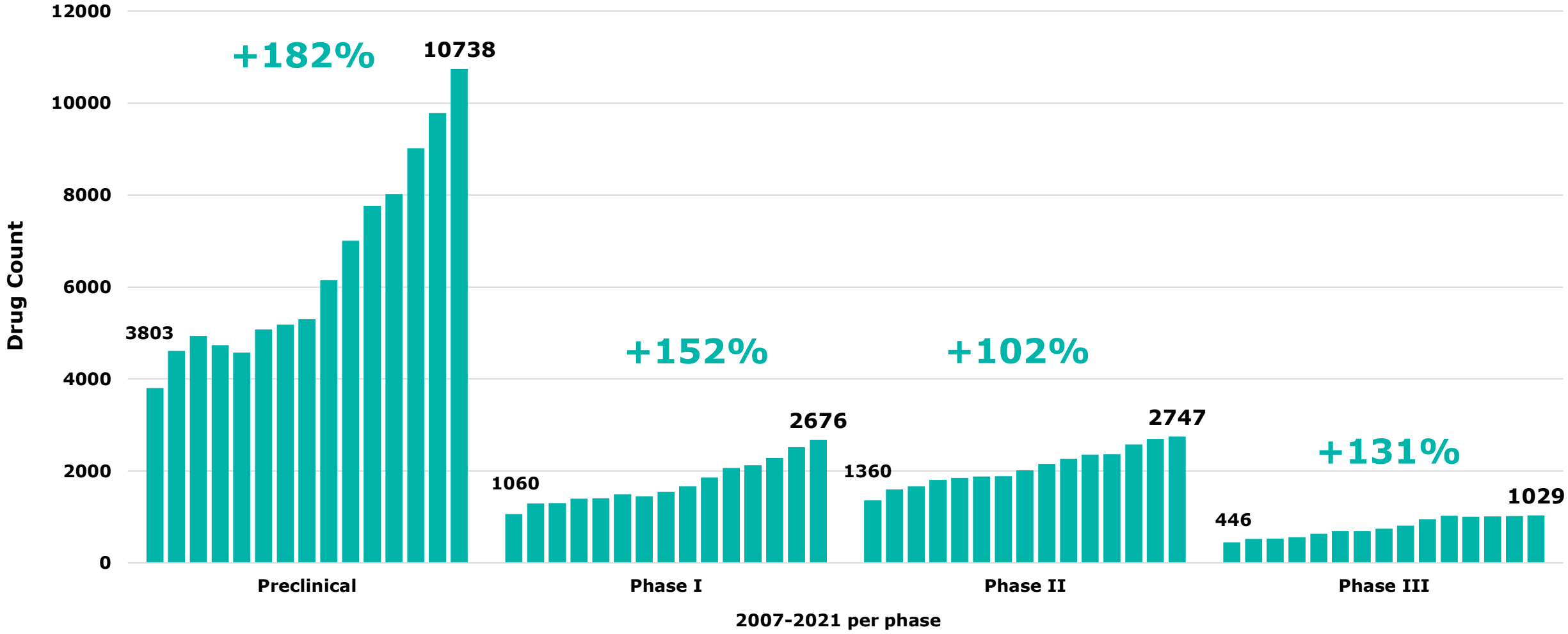
Source: Pharmaprojects® | Informa, 2021

Global drug development by phase, 2021

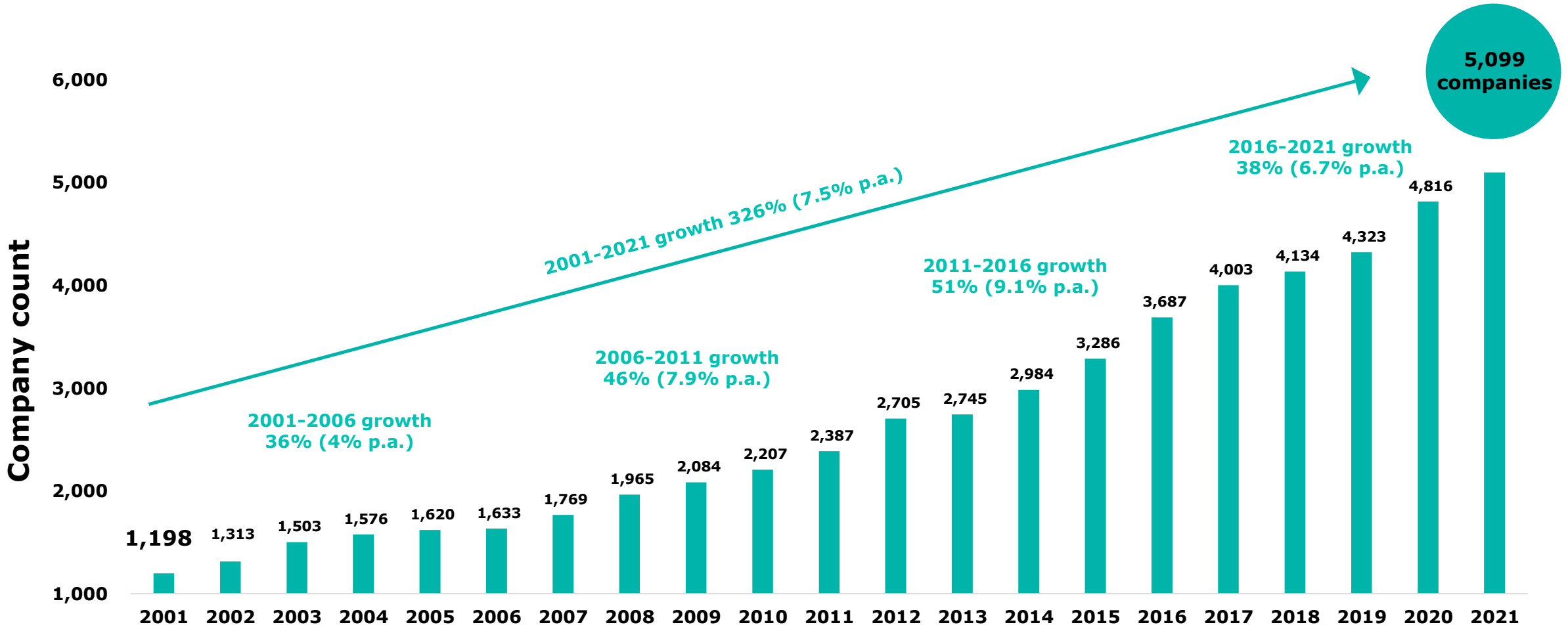


*Launched and in development (7%), Pre-registered (1%), Registered (1%) and Suspended & N/A (1%)

Global clinical drug development phase trends, 2007-2021

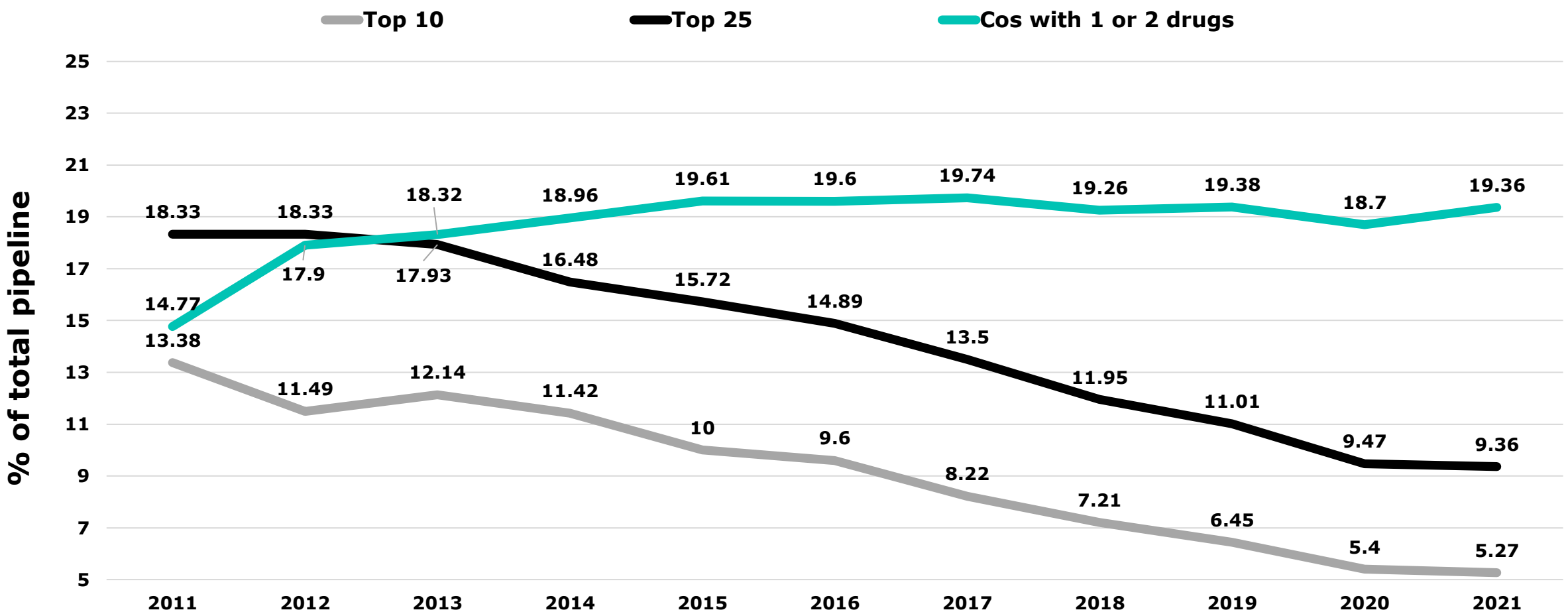


Global number of companies with active pipelines

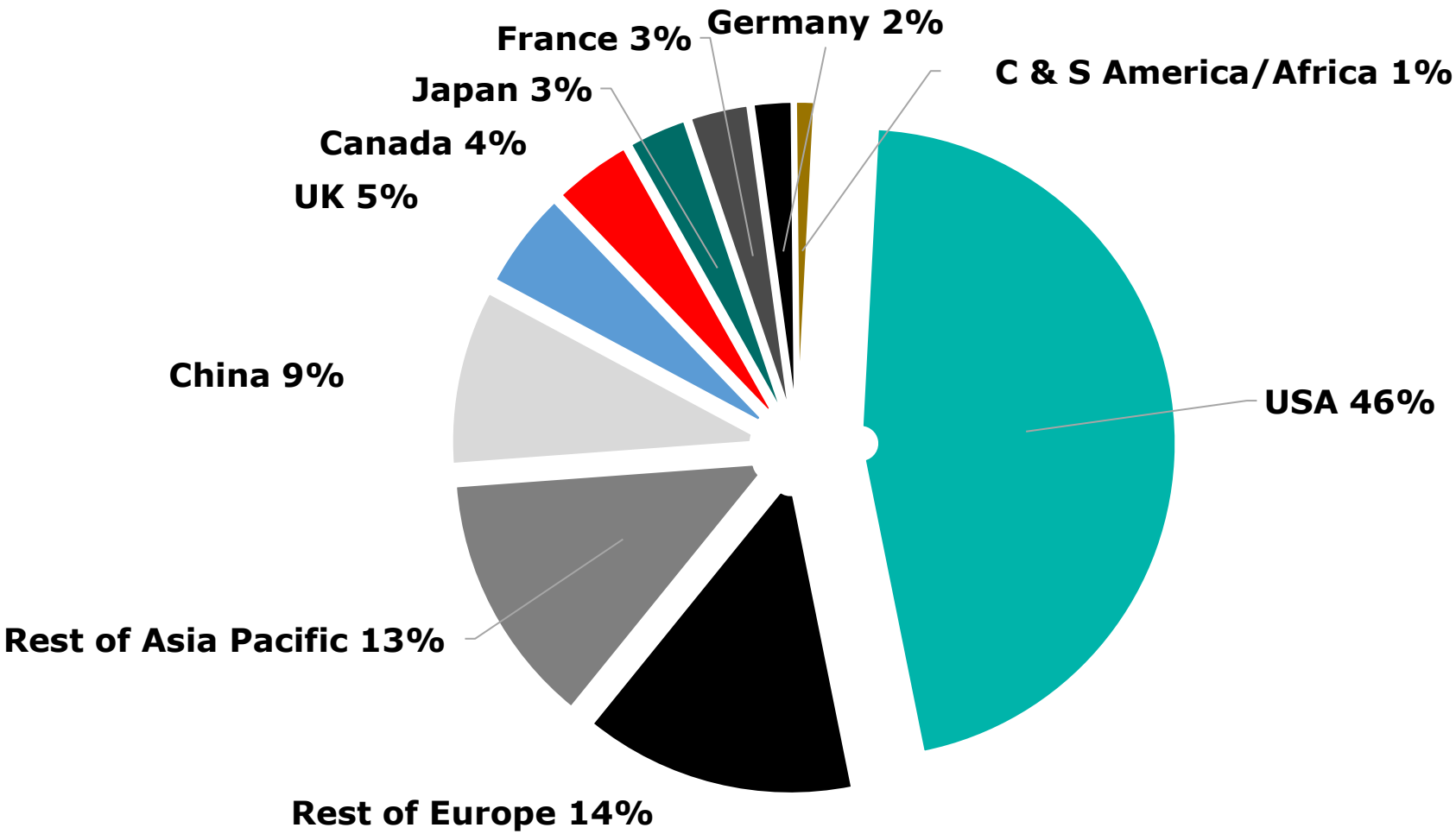


Source: Pharmaprojects® | Informa, 2021

Share of pipeline contributed by top 10 companies, top 25 companies and companies with just 1 or 2 two drugs, 2011-2021



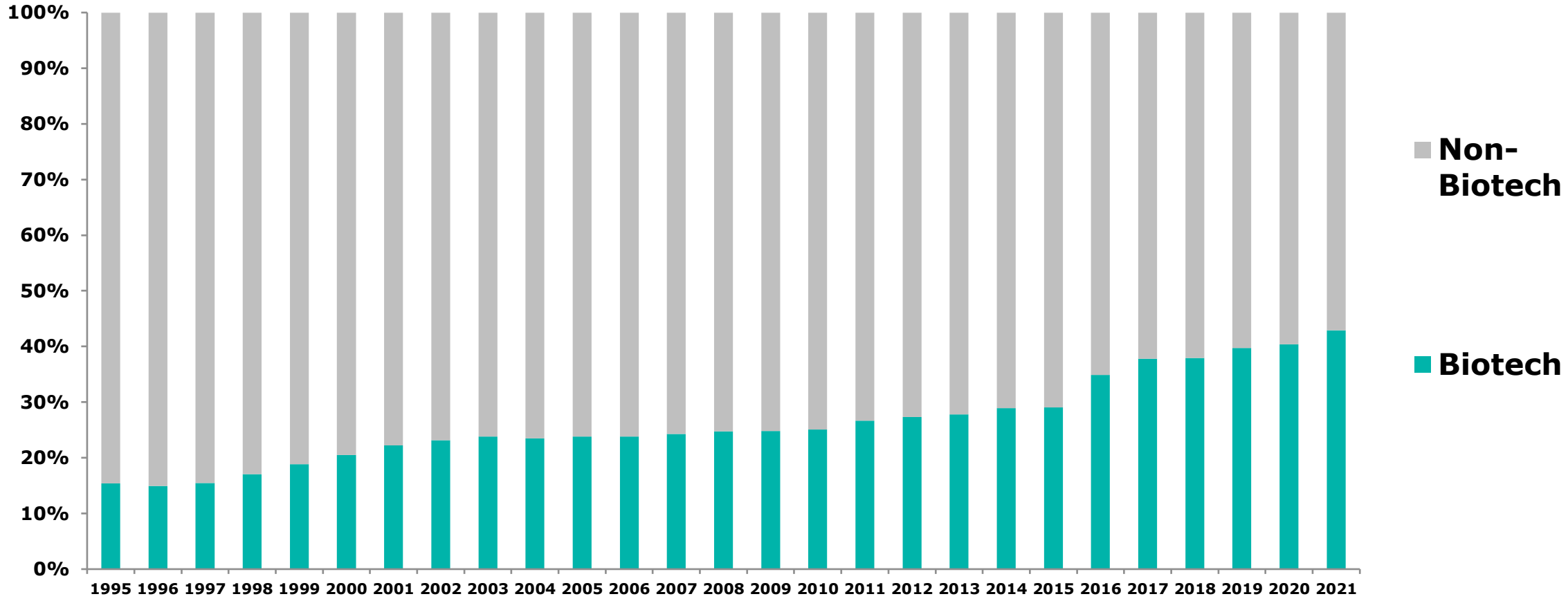
Distribution of R&D companies by HQ country/region, 2021



Source: Pharmaprojects® | Informa, 2021

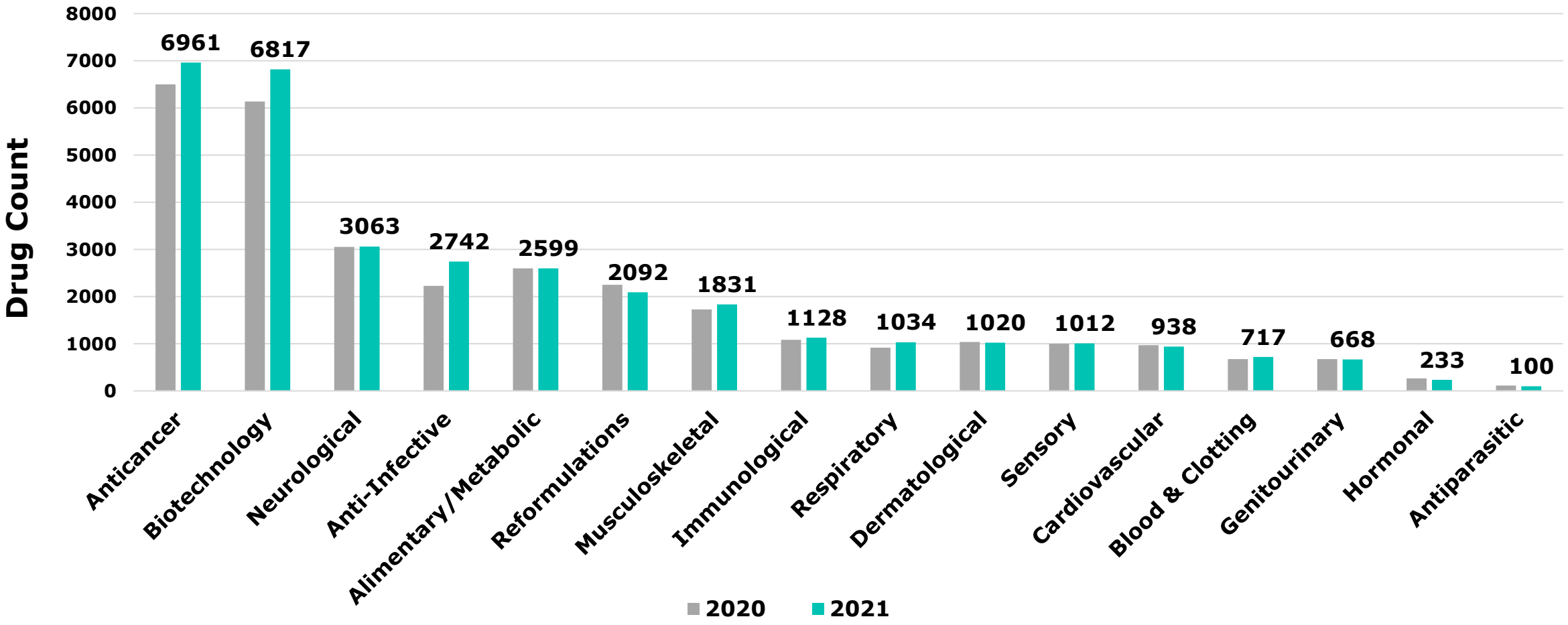
Global drug development by category, 2021

Biological versus non-biological drugs as a % of pipeline



Source: Pharmaprojects® | Informa, 2021

R&D pipeline by therapy group, 2020 and 2021



Source: Pharmaprojects® | Informa, 2021

Nanoform new mid-term business targets 2025

>70
new APIs per year

+40%
vs previous target (>50)

35 lines of which 7-14 are GMP compliant

+40%
vs previous target (25; 5-10 GMP)

200-250
employees

Up 0-25%
vs previous target (~200)

>90%
gross margin

Unchanged

Cash flow positive

Unchanged

API = Active Pharmaceutical Ingredient
GMP = Good Manufacturing Practice

Q&A

Questions through:

1) Dial-in: **FIN: +358981710520**
SE: +46850558358
UK: +443333009269
US: +1 6319131422

PIN: 12138908#

2) Type in the question in the question box below

3) E-mail to IR@nanoform.com

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Prof. Edward Hæggström
CEO

Closing remarks

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Thank you!

Nanoform Capital Markets Day

June 4th, 2021

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