

# PANEL



Kuno Sommer Chairman of the Board



**Günther Loidl**CTO



Thomas Meier CEO



Roland Schürmann COO



Torsten Wöhr
CMO



Alain Schaffter
CFO

# CONTENT

Introduction	Long-term focus, majority shareholder	Kuno Sommer, Chairman
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Mission	Transforming the TIDES CDMO space	Thomas Meier, CEO
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Market	Benefiting from the	growth of TIDES therap	peutics Tors	ten Wöhr, CMO
	J			•

Innovation	Pushing industr	y boundaries in chemical s	vnthesis	Günther Loidl, CTO
			,	

Operations & Capacity	Aiming for best-in-class utilization	Roland Schürmann, COO
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Financials Securing long-term growth Alain Schaffter, CFO

Summary Opening a new chapter Thomas Meier, CEO

Q&A All



### INTRODUCTION: LONG-TERM FOCUS, MAJORITY SHAREHOLDER

Kuno Sommer

# LONG-TERM FOCUS MAJORITY SHAREHOLDER

- Majority shareholder family long-term committed to sustainable growth.
- First 50 years history for CHF 500 million, next 5
  year target for second CHF 500 million sales.
- TIDES markets are facing disruptive changes, driven through medical needs with blockbuster potential and growing switch from recombinant to chemical peptides production.
- Bachem is able to capture these opportunities across of CDMO capabilities through massive capacity investments and long-term partnerships with key players.



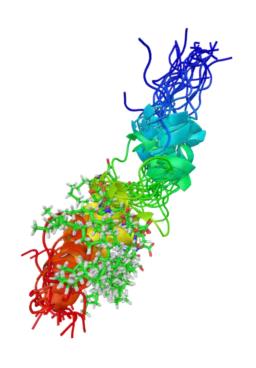




## MISSION: TRANSFORMING THE TIDES CDMO SPACE

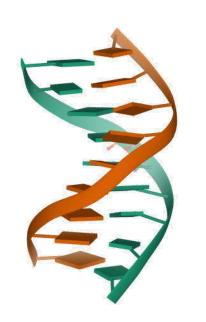
Thomas Meier

## OUR FOCUS - PEPTIDES & OLIGONUCLEOTIDES



### **Peptides**

- More specific, efficacious and safer than small molecules.
- Lower cost and immunogenicity than biologics.
- Complex production processes favor specialists with ability to scale.



### Oligonucleotide therapeutics

- siRNA & ASO deliver gene-silencing i.e. «undruggable» targets.
- Similar advantage profile to peptides
   (specificity, efficacy, safety, immunogenicity, cost).
- Products (siRNA & ASOs) approved for rare diseases and high cholesterol.

Complexity makes
TIDES a
domain for specialists.

Requiring specific knowledge, equipment & infrastructure.



## WHAT WE DO

- Contract development and manufacturing organization (CDMO) for TIDES (PepTIDES and OligonucleoTIDES).
- Full spectrum of TIDES active ingredients by volume (grams, kgs, tons) & complexity.
- Chemical synthesis for tailored formulations and delivery routes.
- Compact small molecule business & vertical integration.
- Long-term partnerships with pharmaceutical and biotech companies.
- Out of scope: biologics, recombinant manufacturing.

## CHEMICALLY SYNTHESIZED TIDES

# Customer landscape shifting from recombinant to chemical synthesis

New generation of metabolic disease medicines

(diabetes, obesity)

only accessible synthetically

Synthetic manufacturing of peptide generics

15-20 peptide-based drugs with recent or imminent patent loss in the next decade\*

# TIDES expansion into new therapeutic indications

**Peptides** 

e.g. peptidic complement inhibitors (PNH, GA and others)

Oligonucleotides

beyond rare diseases, estimated 13 new oligo approvals in industry over next five years\*\*

### Bachem addresses shared challenge across TIDES:

Ramp-up of manufactured volumes for larger patient populations/indications.

Bachem with strong track record in increasing yields at high quality from kgs to tons.

# BACHEM SIGNS LARGE VOLUME CONTRACTS FOR PEPTIDES

#### **Order details**

- Two contracts signed with order volumes of CHF 25 million in 2023 and CHF 150 million in 2024.
- Potential for significantly larger orders for the following years under negotiation.
- Companies agree to maintain customer confidentiality.
- Manufacturing primarily in "Tides FABrication Plant" (Building K), Bubendorf.

### **Key takeaways**

- Large-volume TIDES manufacturing potential beginning to take off in earnest.
- Order book for new building K progressing.
- Right decision to scale up and continue swiftly with further capacity expansion.

## STRENGTHS ACROSS TIDES MANUFACTURING

### **CMO**



Cost-effective manufacturing, e.g. for sponsors with existing processes.

### CDMO



"Best of both worlds":

Sponsor and Bachem develop and execute a tailored process to manufacture (complex) TIDES molecules.

### «Trailblazing» CDMO



First-mover advantage & access for sponsors to new manufacturing technology with superior quality and cost structure.



### MARKET: BENEFITING FROM THE GROWTH OF TIDES THERAPEUTICS

Torsten Wöhr

12

# GAME-CHANGING TIDES MEDICINES (EXAMPLES)

#### Increasing patient populations, API quantities / complexity of active ingredients

# **Endocrine Disorders**

#### **Acromegaly**

Octreotide >1bn\$ market

# Breast/Prostate Cancer

Zoladex (goserelin) ~1bn\$

#### **Hypoglycemia**

Glucagon

0.5-1bn\$ market

#### **Diabetes**

#### Hyperglycemia

market size c. 60-90bn\$

Victoza (liraglutide)
(2010)
3.9 bn\$ peaked 2018

Ozempic (semaglutide)
(2017)
10 bn\$ peak sale est.

Mounjaro (tirzepatide)
(2022)
20 bn\$ peak sale est.

### Obesity/ Weight loss

market size ~30bn\$ by 2030

Saxenda (liraglutide) (2014) 1.5 bn\$ peak sale est.

Wegovy (semaglutide)
(2021)
5 bn\$ peak sale est.

(tirzepatide)strong Ph III results13 bn\$ peak sale est.

#### Cardiovascular Disease

« Expansion of druggable space»

Large-Market
Oligonucleotide

Leqvio
(inclisiran)
expected to grow to
2-5bn\$ by 2027

#### High unmet need

Paroxysmal Nocturnal Hemoglobinuria (PNH)

approved

Pegcetacoplan
(Empaveli)
est. peak
sales 3-4 bn\$

filed

Geographic Atrophy (GA)

# CAPTURE GROWING TIDES CAPACITY DEMAND

### **CMO**



**Commercial Benefit** 

Stable, predictable base business.

**Strategic Rationale** 

Strong cash flow and increased recession resistance.

**Contract Types** 

14

Long-term partnership agreements with CAPEX and capacity reservation components.

Key customer demand addressed

Supply security, capacity for future growth, efficient manufacturing.

## LEVERAGE EXPERIENCE IN TIDES DEVELOPMENT

### **CDMO**



### **Commercial Benefit**

Feeder for commercial pipeline through active portfolio management and investment in generic product portfolio.

### **Strategic Rationale**

Value of development- and regulatory expertise.

### **Contract Types**

15

Master Service Agreements with purchase orders and additional agreements for services, e.g. quality.

# Key customer demand addressed

Growing need for speed in clinical development, particularly biotech.

## WIN PROJECTS ONLY BACHEM CAN DELIVER ON

### «Trailblazing» CDMO



### **Commercial Benefit**

Feeder for NCE pipeline and access to new markets.

### **Strategic Rationale**

Technology partnership effects and ability to differentiate against competitor and captive players.

### **Contract Types**

Purchase Order System and supply agreements with focus on technology collaboration/IP.

# **Key customer demand addressed**

Complex peptides and entry point for siRNA and ASO projects.



### INNOVATION: PUSHING INDUSTRY BOUNDARIES IN CHEMICAL SYNTHESIS

Günther Loidl

# PEPTIDES AND OLIGONUCLEOTIDES ARE SIMILAR

### **PepTIDES**

### OligonucleoTIDES



Example Glucagon

18

### Natural Biopolymers

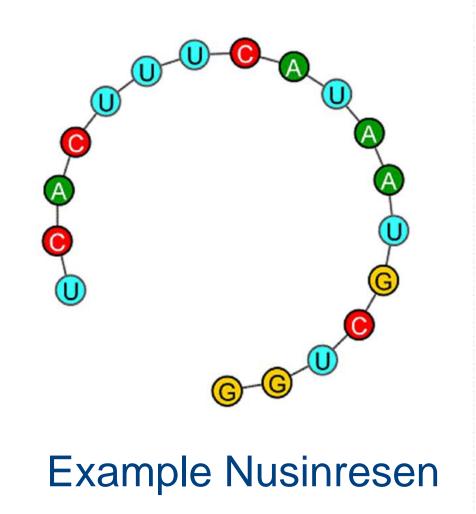
Present in all living organisms.

Built from monomers.

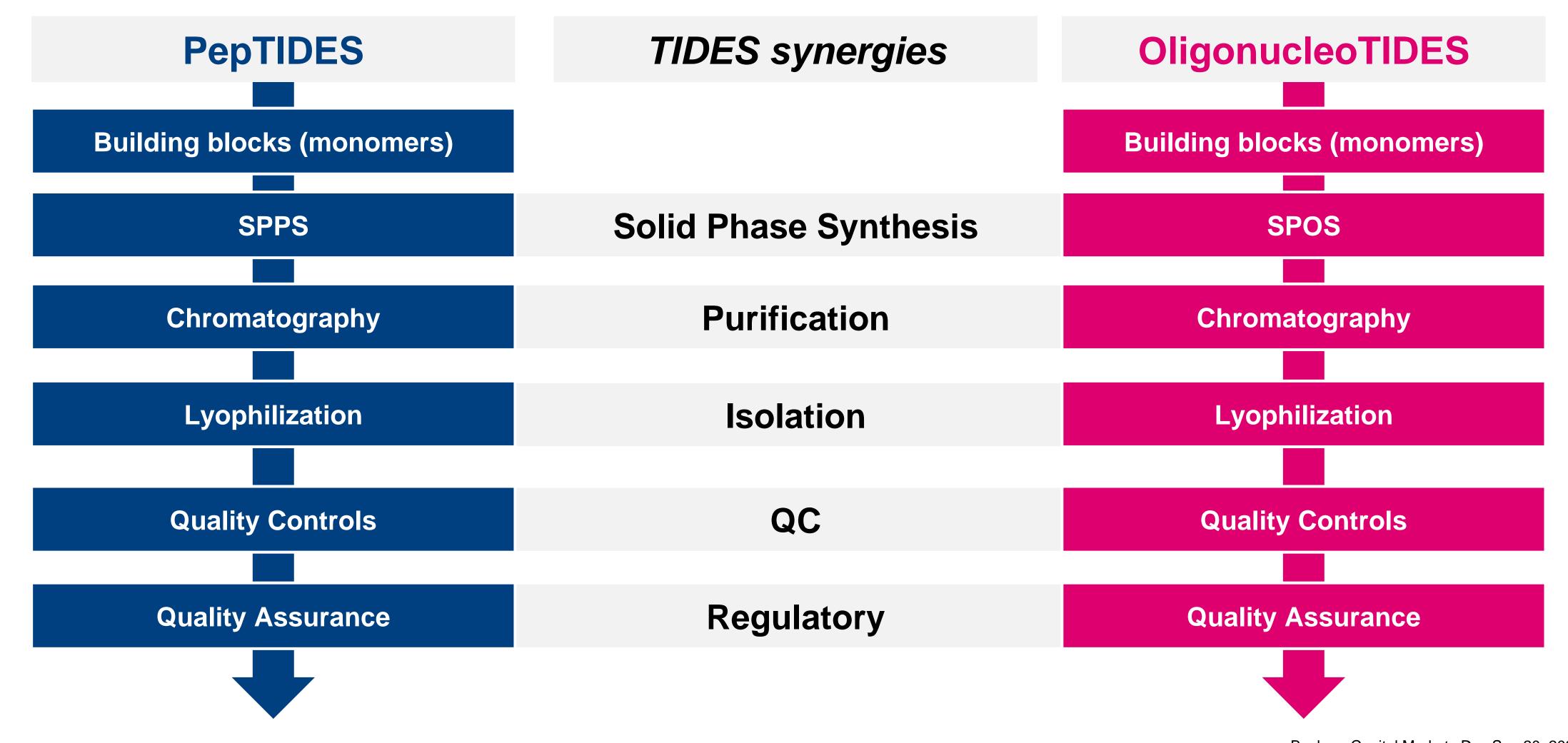
Most complex chemical APIs.

Knowhow and technology are key.

Synergies along entire value chain.



# TIDES MANUFACTURING BUILT ON SYNERGISTIC TECHNOLOGY PLATFORMS



# CHEMICAL SYNTHESIS OUTPERFORMS RECOMBINANT METHODS FOR NEXT GEN DRUGS

# The Challenge

Peptides are inherent to the human body, excellent safety profile, half-life elongation with chemical modifications.

Legacy

### **Chemical synthesis**

peptides made with chemical means focus on small volumes & high molecule complexity.

### **Recombinant production**

peptides based on living cells focus on large volume & low molecule complexity.

# **Current & Future Trend**

### Growing complexity of molecules & innovation drive chemical advantage!

- ✓ Allows for production of tailored high performance molecules.
- ✓ Greater stability: prolonged-half life, longer time for active ingredient to act in the body, oral trend requires stable molecules and favors chemical.
- ✓ Faster production shortens time to clinic and market.
- ✓ Technology innovation supports increasing scale of commercial production.

# TECHNOLOGY AND INNOVATION ARE KEY DIFFERENTIATORS

### **Technology**

# Application Area

# Innovative Quality

# Technical Advances

# Stirred bed reactor

- Oligonucleotides
- Bachem-owned IP
- Several patent applications
- Equipment available
- Solve oligonucleotide scale-up challenge
- Lower COGS

# **Continuous Chromatography**

- Peptides and Oligonucleotides
- Bachem first-mover in TIDES ecosystem
- Continuous manufacturing
- Substantial cost savings
- Highly automated
- Greener, less solvents

# Molecular Hiving Synthesis

- Peptides, expansion to oligonucleotides
- Collaboration with Jitsubo (JP), Univ. Tokyo (JP)
- Bachem-owned IP
- Several patent applications
- Shorter molecules
- Greener, lower cost
- Scale-up to tons feasible



### OPERATIONS & CAPACITY: AIMING FOR BEST-IN-CLASS UTILIZATION

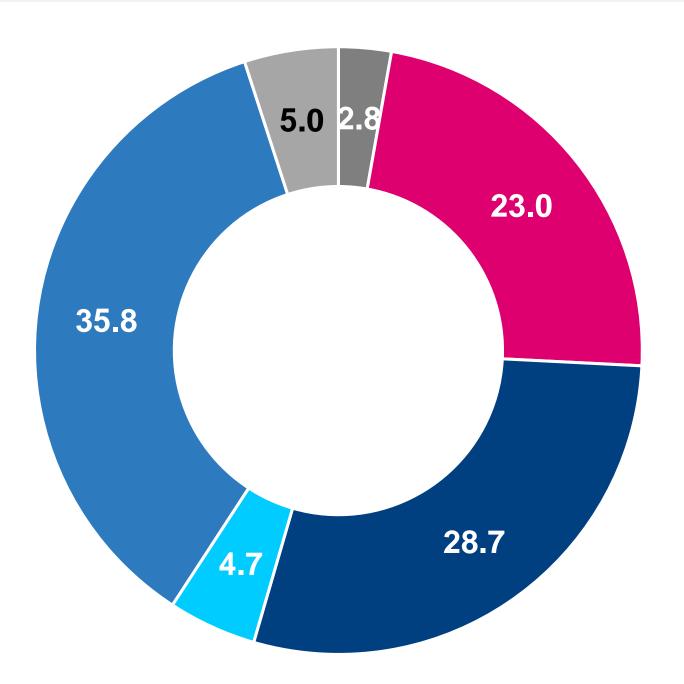
Roland Schürmann



# WORLD-LEADING TEAM OF TIDES EXPERTS

### **Key Bachem advantages:**

- Highly educated workforce.
- Position in Basel-region biopharma hub with strong headquarter hub.
- Extensive TIDES network at universities and chemistry faculties.
- Strong culture and commitment to apprenticeships, training and internal talent.



# Education of Bachem workforce (2021) by degree in %

- Apprentices
- University degree (master)
- Bachelor
- Associate & other degrees
- Professional training
- Without professional training

# THE WORLD'S TIDES CENTER OF EXCELLENCE IN BUBENDORF



### "Tides FABrication Plant" (Building K)

- TIDES fabrication plant: 15'700 m<sup>2</sup> (170'000 ft<sup>2</sup>).
- Groundbreaking: July 2021.
- Construction on track for launch of manufacturing in 2024.
- Capabilities for both peptides and oligonucleotides.
- Strong focus on green chemistry and automation
- Modular expansion after 2024 for overall doubling of Bubendorf capacity.

#### Ongoing further investments across the site:

- Expansion of existing production building G (SPPS/LPPS)
- Dispensation, shipping & cold storage rooms.
- Office, administration and parking expansion.

# INVESTMENTS ACROSS A FOCUSED GMP NETWORK



### **Bubendorf (CH)**

- Sustain and expand world-leading Center of Excellence for TIDES.
- Leverage position in Basel biopharma cluster.



### Vionnaz (CH)

 Expand capacity for back-integration for AAD-supplies and small peptides.



### Vista, California

- Increase scale and capacity for mid to large scale projects.
- Expand manufacturing scale and footprint.



### Torrance, California

- Increase automation and efficiency.
- Modernize and close technology gap.

# ADDITIONAL SITE IN SWITZERLAND

- Site focused on manufacturing.
- Land purchase planned for 2022.
- Plan to begin production latest by end of decade.
- Modular expansion over time.
- North-Western Switzerland:
   Easy technology-transfer from
   Bubendorf, tap into life science cluster.





# VERTICAL INTEGRATION ROBUST SUPPLY CHAIN & ENERGY

- In-house production of quality-relevant starting materials and building blocks in small-molecule facility in Vionnaz.
- In-house production of price-relevant starting material to reduce dependencies on specific regions.
- Additional offering of exclusive building blocks to give our customers to diversify supply.
- Multi-source supply for commodities.
- Stable energy supply thanks to use of renewable sources and no direct dependency on gas.

# OPERATIONAL EXCELLENCE TO UNLOCK FURTHER UTILIZATION IMPROVEMENT



Continuous 24/7 shift implementation in Bubendorf.



Optimize the demand to supply planning/data analyses/material-/information flow.



Campaign production and optimized cleaning/set-up.



Rapid deployment of new technology, e.g. automation, in-process analytics.



### SECURING LONG-TERM GROWTH

Alain Schaffter

29

## SECURING LONG-TERM GROWTH

### **Financing**

- Overall, CHF 1 CAPEX equals minimum of CHF 1 in annual sales.
- Key sources: Proceeds from 2021 equity increase and operating cash flow.
- Preference for independent financing without external loans.
- Negotiate opportunity to accelerate capacity with customer participation like pre-payment on future supplies.

### **CAPEX Top Priorities**

 "Tides FABrication Plant" (Building K)

2021-2024: CHF 220 million 2024-2026: CHF 150 million

 New Manufacturing Site Switzerland

2022: Land and terms for purchase planned for this year. Plan to begin production latest by end of decade.

## SUMMARY

Thomas Meier

## OUTLOOK 2022-2026



 Expected average sales of 15% per year 2022-2026 (CAGR).



### **Profitability**

EBITDA ahead of 30%.



### Capacity

- Deliver capacity for a rapidly growing demand.
- Investments across global manufacturing network.



### **Portfolio**

- Oligonucleotides and peptides that make a difference.
- Build a strong second business pillar with Oligonucleotides.
- Strengthen and leverage vertical integration.

# STRONG MOMENTUM IN BACHEM'S WORLD

- Market expansion of synthetic pepTIDES and oligonucleoTIDES drug substances in large-patient diseases.
- Validation of Bachem's long-term organic growth vision & mission and specific investments:
  - World-class TIDES TEAM
  - Technical leadership e.g. «trailblazing CDMO»
  - Capacity expansion in lockstep with market demand
- Long-term partnership agreements for synthetic TIDES manufacturing.





All



# THANK YOU FOR YOUR ATTENDANCE!

Question? Send an e-mail to...

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35 Bachem H1 Results 2022

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36 Bachem H1 Results 2022