Safe Harbor

Forward looking statements

This communication contains certain forward-looking statements, relating to the Company’s business, which can be identified by the use of forward-looking terminology such as “estimates”, “believes”, “expects”, “may”, “will” “should” “future”, “potential” or similar expressions or by general discussion of strategy, plans or intentions of the Company. Such forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause our actual results of operations, financial condition, performance, or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements.

Such factors include, among others, the following: uncertainties related to results of our clinical trials, the uncertainty of regulatory approval and commercial uncertainty, reimbursement and drug price uncertainty, the absence of sales and marketing experience and limited manufacturing capabilities, attraction and retention of technologically skilled employees, dependence on licenses, patents and proprietary technology, dependence upon collaborators, future capital needs and the uncertainty of additional funding, risks of product liability and limitations of insurance, limitations of supplies, competition from other biopharmaceutical, chemical and pharmaceutical companies, environmental, health and safety matters, availability of licensing arrangements, currency fluctuations, adverse changes in governmental rules and fiscal policies, civil unrest, acts of God, acts of war, and other factors referenced in this communication.

Given these uncertainties, prospective investors and partners are cautioned not to place undue reliance on such forward-looking statements. We disclaim any obligation to update any such forward-looking statements to reflect future events or developments.

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Heidelberg Pharma at a Glance

Developing new options to address major challenges in cancer therapy

Our Company
- Listed as Heidelberg Pharma AG
  Frankfurt Stock Exchange: WL6
- Shares outstanding: 28.16 million
- Market cap: ~€80 million
- Headquarters: Ladenburg, Germany
- 66 employees

Our Mission
- Improve efficacy
- Overcome resistance mechanisms
- Kill dormant tumor cells
- Provide new options in cancer therapy

Our Approach
- New mode of action in cancer therapy
  - Induction of apoptosis by inhibition of RNA Polymerase II
  - Application of innovative payload by harnessing ADC therapeutic modality
- Antibody Targeted Amanitin Conjugates (ATACs)
Management Team with Strong Pharma and R&D Experience

Dr. Jan Schmidt-Brand

CEO / CFO

@ Heidelberg Pharma since 2001

20 years’ experience in commercial and financial leadership positions in pharma and chemical companies, including BASF

Managing Director of an Austrian BASF Pharma subsidiary (EBEWE Arzneimittel GmbH) from 1997 to 2001, prior several positions at the BASF Group

Member of the board of directors of BIO Deutschland e.V.

LLD from the University of Mannheim

Prof. Dr. Andreas Pahl

CSO

@ Heidelberg Pharma since 2012

20 years’ experience in research and higher education

Head of Late Pharmacology at Nycomed and Takeda Pharmaceuticals from 2008 to 2012

Professor of Pharmacology and Toxicology at the University of Erlangen-Nuremberg (FAU)

PhD in chemistry from the University of Berlin
Strategic Cornerstones

Build proprietary ATAC pipeline

Sign technology licensing collaborations

Additional upside potential with partnered non-ATAC legacy clinical assets

Proprietary lead candidate HDP-101

ATAC technology partnering with pharma and biotech

ATAC third-party collaborations + other proprietary ATAC candidates

Mesupron® - uPA inhibitor

TLX250-CDx – imaging agent (Reectane®)
## ATACs – Growing Pipeline of Proprietary and Partnered Programs

### Additional proprietary ATACs in research and preclinical development

- Excellent preclinical efficacy in mice and very good tolerability

<table>
<thead>
<tr>
<th>Product</th>
<th>Target</th>
<th>Indication</th>
<th>Research</th>
<th>Preclinic</th>
<th>Clinic</th>
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<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
<td></td>
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<td>HDP-101</td>
<td>BCMA</td>
<td>Multiple myeloma (DLBCL/CLL)</td>
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<td>Prostate cancer</td>
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<td>CD19-ATAC</td>
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<td>Hematological tumors</td>
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<td>XX-ATACs</td>
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<td>Leukemias &amp; solid tumors</td>
<td></td>
<td></td>
<td></td>
<td>Undisclosed partners</td>
</tr>
</tbody>
</table>

#### ATAC technology partner

- **TAK-XX-ATACs**
  - n/a
  - Takeda/Millennium

- **MGTA-XX-ATACs**
  - CD117, CD45
  - Conditioning programs for bone marrow transplant in AML
  - Magenta
Achievements – Last 12 Months

Proprietary lead candidate HDP-101
- Core milestones of GMP manufacturing achieved
- Preclinical GLP tox studies – first part completed
- Preparation of clinical trial with HDP-101 progressed
  ✓ Type C Meeting FDA
  ✓ Scientific Advice Paul-Ehrlich-Institut
  ✓ Clinical centers identified (US, GER)

ATAC technology partnering
- Magenta Therapeutics
  ✓ 1st licensing option exercised (10/2018)
  ✓ 3 poster presentations: ASH HDP and Magenta enter into GMP supply agreement for Amanitin linkers on top of ongoing collaboration

ATAC collaborations & pipeline
- Oral presentation by MD Anderson at ASH 2018
- Presentation of preclinical data HER2-ATAC at AACR 2019
- Encouraging data of pre-clinical data set for PSMA-ATAC

MESUPRON®
- Link Health received IND to conduct clinical trials in China

TLX250-CDx (REDECTANE®)
- New and modernized production process for girentixumab; milestone payment for HDP
- Telix started Phase III trial in Europe and Australia
Amanitin – Innovative Cell Toxin with High Clinical Potential

Unique mode of action of Amanitin as toxic payload...

- Amanitin kills dividing AND quiescent tumor cells by binding and inhibiting RNA polymerase II
  → results in potential clinical benefits by
    Antibody Targeted Amanitin Conjugates (ATACs) as targeted therapy
    - Strong efficacy in vivo and in vitro models
    - Ability to overcome resistance
    - Kill dormant tumor cells causing metastasis & tumor relapse, independent of cell proliferation
    - ATAC technology applicable to every tumor entity

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Antibody Drug Conjugate Technology – Proven & Established Technology

ADC: Combining the best of two therapeutic modalities

Antibody specificity + toxin efficacy → improved therapeutic window and fewer side effects

ATAC: Antibody-Targeted Amanitin Conjugate

1. ATAC is prepared and released into bloodstream
2. Binding to tumor-associated antigen
3. Internalization
4. Release of Amanitin from the antibody/ATAC
5. Amanitin relocates from the lysosome to the nucleus
6. Amanitin binds to the RNA polymerase II and inhibits mRNA synthesis

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## Amanitin Compared Favorably to Approved ADC Toxins

<table>
<thead>
<tr>
<th></th>
<th>Calicheamicin</th>
<th>Auristatin</th>
<th>Maytansinoids</th>
<th>Amanitin</th>
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<tbody>
<tr>
<td><strong>Target</strong></td>
<td>DNA</td>
<td>Tubulin</td>
<td>Tubulin</td>
<td>RNA Pol II</td>
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<tr>
<td><strong>Target concentration</strong></td>
<td>?</td>
<td>$10^{-5}$ M</td>
<td>$10^{-5}$ M</td>
<td>$10^{-8} - 10^{-9}$ M</td>
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<td><strong>Structure</strong></td>
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<td>hydrophobic</td>
<td>hydrophobic</td>
<td>hydrophilic</td>
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<tr>
<td><strong>Activity on non-dividing cells</strong></td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td><strong>Activity on multi-drug resistant cells</strong></td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td><strong>Aggregation of conjugates</strong></td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>low</td>
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<tr>
<td><strong>Conjugation chemistry</strong></td>
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<td>organic</td>
<td>organic</td>
<td>aqueous</td>
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<tr>
<td><strong>Antigen expression</strong></td>
<td>high to low</td>
<td>high</td>
<td>high</td>
<td>high to very low</td>
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<tr>
<td><strong>Clinical data</strong></td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>
Complete remissions in JIMT-1 xenograft models after single dose application of 2.9mg/kg Her2-ATAC

Clinical dose of T-DM1 ineffective (FDA approved Kadcyla®)

Equivalent dose of HER2-ATAC shows complete remission

Kadcyla could not achieve remission

Comparison with auristatin-ADC confirmed superiority of Amanitin payload
Early Validation and Cash Through Pharma Collaborations
+ Future High Value Potential with Proprietary Portfolio

Partnering target by target

Antibodies from partners, license to the partner, development by the partner

ATAC toolbox:
customized and target-optimized toxins and linkers

Defined payload
Linker variations
Amanitin derivates

In-licensed antibodies, internal development activities

HDP-101

Proprietary
# Multi-Target Research and Option Agreements with Takeda and Magenta

## Research & Option Agreements
- Synthesis of ATACs using antibodies from the Takeda/Magenta portfolio
- Both companies have exclusive target licensing option for global development and marketing rights for development candidates
- Option for several exclusive targets
- If option exercised, partner is responsible for further preclinical and clinical development as well as commercialization

## Financials
- Upfront technology access fees and R&D support
- Option fee for each option exercised
- Clinical development, regulatory and sales-related milestone payments:
  - Takeda of up to USD 113 million for each product candidate; up to three targets
  - Magenta: up to USD 330 million for up to four potential targets
- Royalties on sales

---

One of the top 15 pharmaceutical companies worldwide

New and fast growing player in the field of stem cell research
Collaboration enables and accelerates Magenta’s research and development efforts across several targeted conditioning programs for bone marrow transplant with ATACs.
Corporate Overview

ATAC Technology Platform

ATAC Business Model

Proprietary ATAC Projects

Financials & Outlook
Multiple Myeloma – Major Unmet Medical Need

• Second most prevalent hematopoietic malignancy*

• MM represents about 0.8-1% of all cancers worldwide, with 70,000 deaths annually; median age at diagnosis is 65-70 years

• Malignancy characterized by the proliferation of single clone of plasma cells derived from B-cells which produce abnormal antibody proteins

• MM is initially confined to bone marrow, natural progression of disease can result in end organ damage

• MM is still considered incurable, median survival of ~30-60 months

• Current treatment options: Chemotherapy, immunomodulatory drugs, proteasome inhibitors and autologous stem cell transplantation (ASCT)

BCMA Validated Target – Pipeline Overview

**ADCs targeting BCMA – small competitive environment**

- **GSK**: BCMA-MMAE ADC, Phase II data presented @ASH 12/2017: Overall response rate of 60%
- **Medimmune**: Start Phase I Q2 2018
- **HDP-101**: IND and CTD in preparation for filing in Q4 2019
- **Celgene / Sutro collaboration**: IND submission expected early 2019, undisclosed payload

**Bispecific BCMA mAbs**

- **Celgene**: Several projects Phase I/II
- **Amgen**: Several projects Phase I/II
- **Pfizer**: Phase I
- **J&J**: Phase I
- and others

1 See ClinicalTrials.gov Dec 2018

**CAR-T Cell BCMA therapies**

- **Celgene (Bluebird; Juno)**: Several projects Phase I/II
- **Gilead (Kite)**: Several projects Phase I/II
- **J&J; Nanjing Legend Biotech**: Several projects Phase I/II
- **Poseida Therapeutics**: Phase I
- **Autolus Limited**: Phase I
- **The Pregene Biotech Comp**: Phase I
- **Carsgen Therapeutics** Phase I
- **Cartesian Therapeutics**: Phase I
- and others
HDP-101 – Results from Research Collaboration with Heidelberg University and the DKFZ Presented at ASH

Comparison with MMAF (Auristatin Conjugate as used by GSK) on MM Patient Cells

- Green lines: Non-dividing (quiescent) cells isolated from multiple myeloma patient bone marrow biopsies
- Black lines: Dividing tumor cells from lab cell lines

- Strong cytotoxic effect at very low doses, even in cancer cells with a low concentration of BCMA antigens
- No toxicity on non-BCMA expressing control cells
- First time that the efficacy of Amanitin on cancer cells taken from human patients was demonstrated

Only HDP-101 is efficacious on non-dividing primary tumor cells isolated from multiple myeloma patients
17p Deletion – Loss of TP53/POL2RA on Chromosome 17

- TP53 gene on chromosome 17 is frequently mutated (> 50%) in human cancer cells
- POLR2A gene frequently co-deleted with TP53
  
  ➔ higher sensitivity to treatment with ATACs

Publication with scientific partner MD Anderson in Nature, April 2015

Quelle: https://en.wikipedia.org
17p Deletion – Loss of TP53/POL2RA on Chromosome 17

- NATURE Publication: 10 x increased susceptibility to Amanitin in the case of loss of POLR2A
- POLR2A potential biomarker to increase therapeutic window
Literature Confirms Very Bad Prognosis of MM Patients with 17p Deletion

Overall survival with and without 17p deletion

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PSMA-ATAC – Metastatic Castration-Resistant Prostate Cancer (mCRPC)

- PSMA is a clinically validated target, e.g. 177Lu-PSMA-617, a radio-ligand therapy for mCRPC
- PSMA is a commercially attractive target: Novartis acquired Endocyte for that program for USD 2.1 billion
- Strong IP position for the antibody & platform
- Preclinical data package comprises in vitro and in vivo efficacy, tolerability, PK in rodents and monkeys

Therapeutic window based on mouse efficacy and monkey tolerability (HNSTD > 7.5 mg/kg) → TI = 15

Target product profile for metastatic Castration Resistant Prostate Carcinoma (mCRPC)

Prevalence of 17p del in mCRPC is 63%

17p/POLR2A biomarker has been validated preclinically for prostate cancer (Source: Nature Commun. 2018 9:4394)
• Multiple Myeloma and prostate cancer patients with 17p deleted tumors have a very high medical need for new treatment options

• HDP-101 has a preferential activity on 17p deleted tumor cells derived from Multiple Myeloma patients (ASH conference 2018)

• Potential options to speed-up market approval for such a selected patient population if preclinical data translate into clinical benefits

• Potentially broader therapeutic window resulting in lower development risk and new treatment option for patient segment with bad prognosis

FDA programs to enhance innovative therapies

As part of the submission of an application to conduct a clinical trial with HDP-101, the fast track (accelerated process) shall be applied for

Source: FDA
## Financials

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<tr>
<th>in € m</th>
<th>FY 2018</th>
<th>6M 2019</th>
<th>Guidance 2019</th>
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<tbody>
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<td>4.1</td>
<td>5.0 to 7.0</td>
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<td>Operating expenses</td>
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<td>14.0 to 18.0</td>
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<td>Operating result (EBIT)</td>
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<tr>
<td>Funds required per month</td>
<td>0.9</td>
<td>1.1</td>
<td>0.9 to 1.2</td>
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</table>

### Financing
- Mixed non-cash and cash capital increase in November 2017 – €34.4 m total transaction volume
- Cash at the end of 6M 2019: €13.1 m
- Cash reach is secured until mid 2020 based on current budget planning
Heidelberg Pharma Shares

Share performance 2019 ytd

- High: €3.390 (17 April 2019)
- Low: €2.350 (2 January 2019)
- Ave. daily trading volume: 9,095 shares (2018: 34,118)
- Shares outstanding: 28,155,630 (as of 30 June 2019)
- Current market cap: ~€80 m

Share ownership unchanged as of 30 June 2019

- Dietmar Hopp and affiliated companies**: 75%
- UCB: 4%
- Freefloat: 20%
- Corporate bodies *: 1%

* held directly
** dievini Hopp BioTech holding GmbH & Co. KG + DH Holding Verwaltungs GmbH

Analyst coverage

- Pareto 07/19: target €4.10
- EQUI.TS 03/19: target €5.02
- Baader Helvea 10/18: target €4.40
Next Steps and Potential Milestones

ATAC technology and proprietary pipeline

• HDP-101
  • Complete GLP toxicity study
  • Prepare study protocol, sign up study centers
  • Complete GMP manufacturing of clinical trial material
  • Submit Clinical Trial Application in Germany/IND in US for Phase I trial in 2020
  • Initiate clinical development in 2020
  • Continue biomarker development
• Select next proprietary development candidate

• Magenta collaboration
  Generate more preclinical data with C200 (CD117-ATAC), IND submission planned for 2020
  • Expand work with CD100 (CD45-ATAC)

Partnered legacy clinical programs

REDECTANE® (Telix)
TLX250-CDx – imaging agent
  • ZIRCON Phase III trial: Add new sites in the US and Canada (subject to regulatory approval), complete patient recruitment
TLX250 - 177Lu-girentuximab
  • Initiate combination trials with therapeutic radioimmuno-conjugate & checkpoint inhibitor in the US (subject to FDA approval)

MESUPRON® (Link Health)
  • Revise development plan for China based on new NMPA regulations

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Investment Summary

Developing new options to address major challenges in cancer therapy

- Heidelberg Pharma is developing new treatment options with Amanitin for different cancer indications, also validated by high quality collaborations.
- The innovative first in humans mode of action provides high efficacy and potential for unique clinical advantages including treatment of dormant tumor cells as well as increased efficacy against 17p deleted tumor cells.
- Value step-up ahead in 2020 as lead product candidate HDP-101 enters the clinic.
- Dual business model – early validation and cash through pharma collaborations + future high value potential with proprietary portfolio.
Meet Us

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<tr>
<th>Upcoming conferences &amp; events</th>
<th>Venue</th>
<th>Date</th>
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<tbody>
<tr>
<td>Pareto Securities' 10th Annual Health Care Conference</td>
<td>Stockholm</td>
<td>5 September 2019</td>
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<td>Baader Investment Conference</td>
<td>Munich</td>
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<td>World ADC Congress</td>
<td>San Diego</td>
<td>8 – 11 October 2019</td>
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<td>European Antibody Congress</td>
<td>Basel</td>
<td>15 – 17 October 2019</td>
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<td>BIO-Europe</td>
<td>Hamburg</td>
<td>11 – 13 November 2019</td>
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<td>PEGS Europe</td>
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<td>18 – 22 November 2019</td>
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<td>German Equity Forum</td>
<td>Frankfurt</td>
<td>25 – 27 November 2019</td>
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<tr>
<td>ASH 2019 Annual Meeting</td>
<td>Orlando</td>
<td>7 – 10 December 2019</td>
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<tr>
<td>JP Morgan Healthcare Conference</td>
<td>San Francisco</td>
<td>13 – 16 January 2020</td>
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Ticker data

ISIN: DE000A11QVV0
Symbol: WL6
Reuters: WL6G.DE
Bloomberg: WL6.GR