PROTAC® Protein Degraders: Past, Present, and Future

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### Safe harbor and forward-looking statements

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This presentation contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties, including statements regarding the receipt of upfront, milestone and other payments under the Pfizer collaboration, the potential benefits of our arrangements with our collaborative partnerships, the development and regulatory status of our product candidates, such as statements with respect to our lead product candidates, ARV-110, ARV-471 and ARV-766 and other candidates in our pipeline, and the timing of clinical trials and data from those trials and plans for registration for our product candidates, and our discovery programs that may lead to our development of additional product candidates, the potential utility of our technology and therapeutic potential of our product candidates, the potential commercialization of any of our product candidates, and the sufficiency of our cash resources. All statements, other than statements of historical facts, contained in this presentation, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "might," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

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This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such data and estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.



# We have come a long way since the first PROTAC® publication: 10+ bifunctional protein degraders in the clinic!

#### SELECT HETEROBIFUNCTIONAL DEGRADERS IN THE CLINIC<sup>1</sup>

Asset	Company	Target	Indication	Status	Therapeutic Focus	Market Capitalization <sup>2</sup>
ARV-110	ARVINAS	AR	Prostate cancer	Phase 2	Oncology/Immuno- oncology, Neuroscience	~\$4.4B (IPO 2018)
ARV-471		ER	Breast cancer	Phase 2		
ARV-766		AR	Prostate cancer	Phase 1		
AR-LDD		AR	Prostate cancer	Phase 1	Varied	Large Pharma
DT2216	DIXLECTIC. THERAPEUTICS	BCL-XL	Liquid and solid tumors	Phase 1	Oncology	Private Company
GT20029	<b>K</b> INTOR	AR	Acne and alopecia	Phase 1	Dermatology	~2.3B³ (IPO 2020)
KT-474	,KYMERA	IRAK4	AD, HS	Phase 1	Dermatology, Immunology, Oncology	~2.8B (IPO 2020)
NX-2127	nurix	ВТК	B-cell malignancies	Phase 1	Oncology	~1.3B (IPO 2021)
CFT7455	C4 Therapeutics	IKZF1/3	MM, NHL	Phase 1	Oncology	~\$2.1B (IPO 2020)
FHD-609	FCGHORN° THERAPEUTICS	BRD9	Synovial sarcoma	Phase 1	Oncology	~\$440M (IPO 2020)



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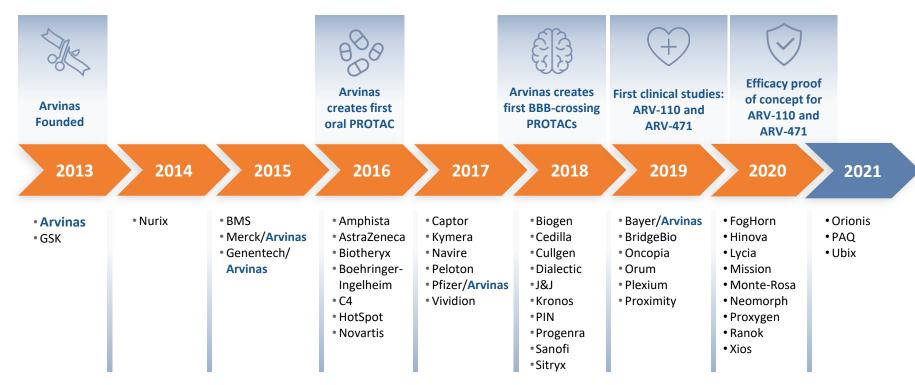
#### Clinical Trial Initiated in 2021

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### The success of Arvinas and others spurred a mini-industry around Targeted Protein Degradation

Select Arvinas Achievements and Companies Developing Protein Degraders<sup>†</sup>



<sup>†</sup> Not a comprehensive list; timeline lists the year in which the first targeted protein degradation program was disclosed for each company Source: company websites; press releases



# Arvinas is a fast-growing company benefitting from the rapidly growing biotech community in Connecticut



## Arvinas 2025 Vision: A global organization delivering the benefits of PROTAC® degraders to patients



### Integrated biotech building global footprint

- Extending the benefits of PROTAC protein degraders to patients worldwide and in new therapeutic areas
- Continuing build-out of global resources and capabilities
- PROTAC Discovery Engine sustainably delivering ≥1 clinical candidate per year

019-20

Proved the Concept of Our PROTAC Discovery Engine

**Built Arvinas' Foundation as a Pioneer in Protein Degradation** 



## ARV-471 & ARV-110, our most advanced PROTACs: Proof-of-concept and opportunities to benefit patients in large areas of unmet need

**ARV-471** 

Estrogen receptor- PROTAC®

Breast Cancer
Partnership







Potential best profile of any ERtargeting therapy:

- Tolerability
- ER degradation
- Clinical benefit



Potential future endocrine therapy of choice in both adjuvant and metastatic settings

Phase 2 VERITAC trial ongoing



>200k patients<sup>†</sup> per year with high unmet need

**ARV-110** 



**Prostate Cancer** 



AR degradation and clear signals of efficacy observed in late-line mCRPC



Phase 2 ARDENT trial ongoing; two potential paths to registration:

- 1. 3L Molecularly Defined Patients
- 2. Broader Patient Population 1L/2L

Extensive molecular profiling of tumors to understand drivers of resistance



>250k patients<sup>†</sup> per year with high unmet need

Data as presented 12/14/2020



## ARV-471: First-in-class ER-degrading PROTAC in advanced breast cancer



**Resistance** is the greatest challenge to current therapies

In 2021, there will be an estimated

192,134 new cases

of ER+/HER2- breast cancer in the U.S.\*\*

The unmet need in ER+/HER2- breast cancer represents a

>\$15b market opportunity\*\*\*

### **ARV-471**

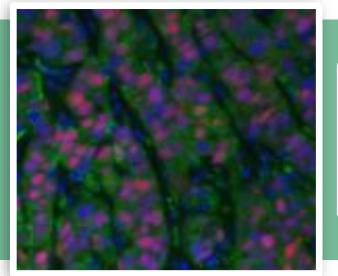
An investigational oral PROTAC® protein degrader for the treatment of ER+ metastatic breast cancer

- The injectable SERD fulvestrant established the importance of ER degradation for delivering benefit to patients with advanced breast cancer
- ARV-471 has the potential to degrade ER better than fulvestrant and become an oral, best-in-class ER-directed therapy

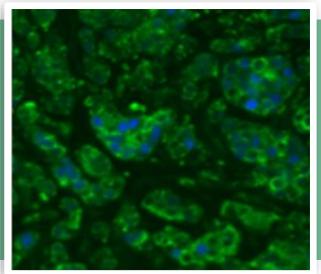


Data as presented 12/14/2020

ER Degradation in Tumor Biopsies







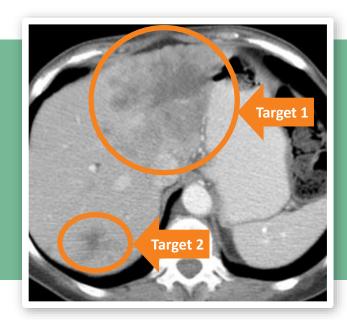
Baseline

68% Reduction in ER after treatment with 60 mg ARV-471

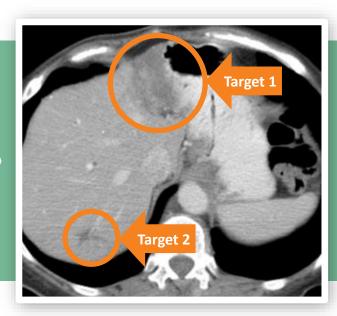
## Confirmed RECIST Partial Response in a patient with extensive prior therapy and an ESR1 mutation at 120 mg

Data as presented 12/14/2020

**Lesion Reduction** 



Baseline

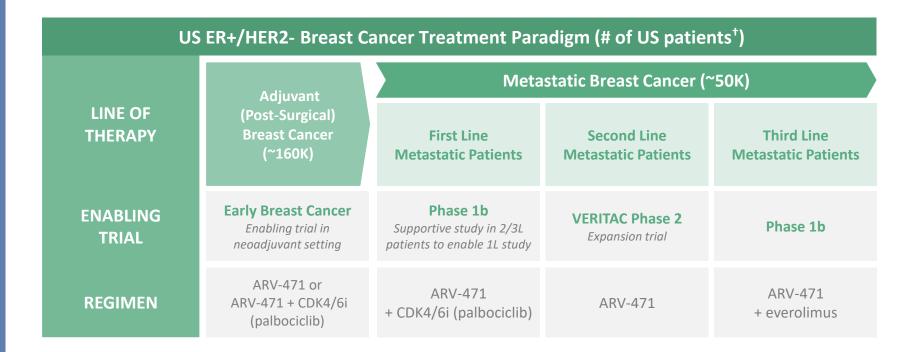


51% reduction in target lesions (RECIST partial response) after 4 cycles of ARV-471



### ARV-471: Moving forward rapidly across the continuum of disease

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## Our strategic collaboration with Pfizer accelerates global development and commercialization of ARV-471

### **Collaboration Summary**

**Upfront Payment & Equity Investment** 

\$1B<sup>†</sup>

**Development Expenses**& Commercial Costs

50% Arvinas / 50% Pfizer

Approval & Commercial Milestones

Up to \$1.4B

**Profit Share** 

50% Arvinas / 50% Pfizer Worldwide

### **Broad Impact to Arvinas**

- Accelerates and broadens global development and commercialization of ARV-471
- Leveraging of Pfizer's breadth of expertise and experience successfully driving trials to approval
- Provides access to Pfizer's global clinical, regulatory, medical, patient advocacy, and commercial footprint
- Accelerates Arvinas' strategy to build a fully integrated biotech
- Shares development costs and risks while progressing ARV-471 as part of Arvinas' pipeline
- Further enables the advancement of our deep pipeline in oncology, I-O, and neuroscience



### ARV-110: AR-degrading PROTAC in metastatic prostate cancer



U.S. men will be diagnosed with prostate cancer during their lifetime<sup>†</sup>

Prostate cancer is the second leading cause of cancer death for men in the U.S.<sup>††</sup>

In 2021 alone, there will be an estimated

## 248,530 new cases

of prostate cancer<sup>†††</sup>

**34,130 deaths** are attributed to the disease\*\*\*

High unmet need in prostate cancer treatment represents

\$8b market in the US alone\*\*\*\*

### **ARV-110**

An investigational oral PROTAC® protein degrader that targets the androgen receptor (AR) for the treatment of prostate cancer

- AR is a critical target in prostate cancer therapy
- Tumors develop resistance to standard-of-care **AR inhibitors**
- ARV-110 may overcome point mutations and other drivers of resistance
- Activity in late-line settings suggests potential for even stronger benefit in earlier-line, lesspretreated patients



## ARV-110 has shown clinical benefit in Phase 1 in a highly refractory patient population

Data as presented 12/14/2020

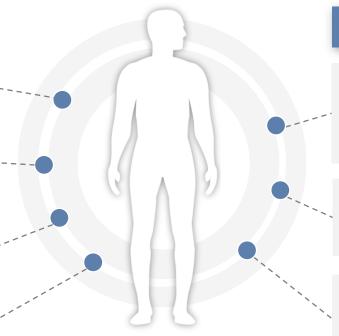
### A challenging patient population

Median number of previous therapies

Patients were treated with both abiraterone and enzalutamide

Patients were treated with prior chemotherapy

Patients have non-AR mutations



#### Clinical benefit in Phase 1

**ARV-110** is well tolerated, allowing continued dose escalation up to 700 mg daily<sup>†</sup>, and potentially supporting use in earlier lines of therapy

AR degradation and late-line activity suggest strong potential across multiple disease states

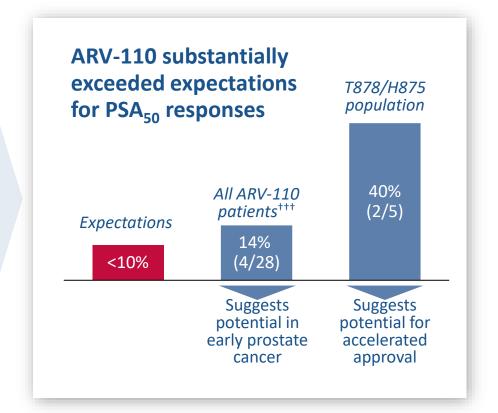
AR molecular profiling identifies a molecularly defined, late line population that may offer a possible path to accelerated approval

## ARV-110 has shown encouraging efficacy signals in patients with extensive prior therapy and few to no treatment options

Data as presented 12/14/2020

- Up to 90% of early-stage prostate cancer patients treated with enzalutamide experience PSA reductions<sup>†</sup>
- PSA<sub>50</sub> responses drop to 8-15% in patients with 3L mCRPC<sup>††</sup>

In the ARV-110 Phase 1 population, we expected <10% PSA<sub>50</sub> response rate



<sup>†</sup> Tombal, Lancet Oncology 2014; †† de Wit R, N Engl J Med. 2019; Hussain, ESMO 2019; ††† Includes all patients with exposures above a threshold that predicted efficacy in preclinical models. mCRPC, metastatic castrate resistant prostate cancer; PSA50, prostate-specific antigen reduction >50%



# ARV-110: ARDENT is exploring potential paths forward in both molecularly defined and earlier-line patients with prostate cancer

Anticipating Phase 1 dose escalation and interim ARDENT Phase 2 data at ASCO GU in February 2022

STUDY SETTING	ENABLING TRIAL	REGISTRATIONAL TRIAL		
3L mCRPC Patients	ARDENT Phase 2 AR T878/H875 subgroup	Pivotal Phase 2 for Accelerated Approval Molecularly defined patients		
1L/2L mCRPC Patients	ARDENT Phase 2 "Less-pretreated" subgroup	Confirmatory Phase 3 Irrespective of AR profile		
Castration-sensitive Prostate Cancer Patients	Opportunity for further label expansion			

## Arvinas' breakthroughs are driven by our integrated PROTAC® Discovery Engine

Arvinas' platform is built from nearly 20 years of experience, know-how, and IP

### **PROTAC Discovery Engine**

**1** 

Ligase Selection and Ligand Identification

Rapid PROTAC Design

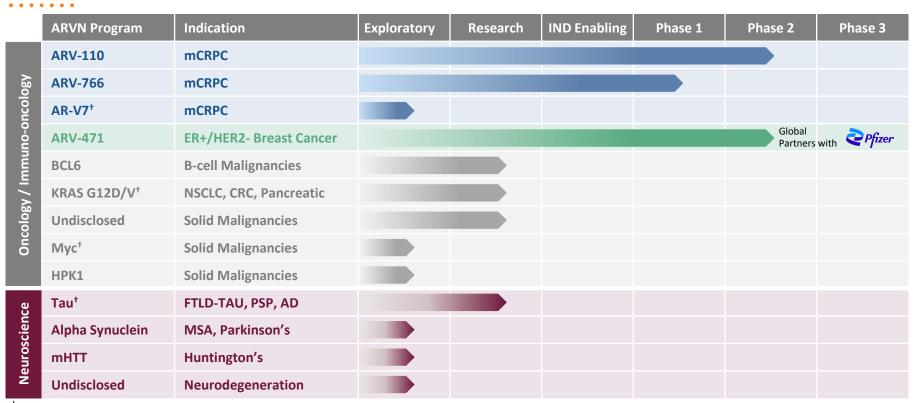
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- E3 KnowledgeBase matching the correct E3 ligase to correct target
- Leveraging AI and structural understanding of ligases to identify and design ligands; deal with Insilico Medicine expands AI capabilities
- Arvinas' DNA-encoded libraries for advanced screening
- Identification of new "warheads" for previously undruggable targets

- Zone of Ubiquitination we design PROTAC degraders to predict the precise location where a protein can be tagged
- Predictive computational modeling
- State-of-the-art proteomics capabilities

- "Arvinas Rules" for drug-like properties, including blood-brain barrier penetration and oral bioavailability in humans
- Deep knowledge of molecular features allow us to create PROTAC degraders with drug-like properties and activities

# Broad pipeline across oncology / immuno-oncology and neuroscience for validated and "undruggable" targets



<sup>†</sup>Denotes historically undruggable proteins

Note: Pipeline is non-exhaustive and IND dates are anticipated.
mCRPC, metastatic castration-resistant prostate cancer; ER+/HER2-, estrogen receptor+/human epidermal growth factor receptor 2-; NSCLC, non-small-cell lung carcinoma; CRC, colorectal cancer; FTLD-tau, frontotemporal lobar degeneration-tau; PSP, progressive supranuclear palsy; MSA, multiple systems atrophy



### We anticipate a rapid pace of milestones in the coming year

2021 2022 Initiate Phase 3 studies in metastatic breast cancer (as Share completed Phase 1 data (anticipated at SABCS) monotherapy and in combination) **ARV-471**  Initiate Phase 1b combination study with everolimus VERITAC Phase 2 data (ER PROTAC®) Begin early breast cancer study (neoadjuvant setting) Safety data from Phase 1b IBRANCE® (palbociclib) combination study data Share complete Phase 1 dose escalation and interim **ARV-110** ARDENT Phase 2 data (anticipated at ASCO GU) Initiate abiraterone combination study (AR PROTAC®) Share completed ARDENT Phase 2 data Share interim abiraterone combination data **ARV-766** Share Phase 1 data Initiate Phase 1 (AR PROTAC®) Initiate Phase 2

**INDs** 

Four additional INDs through 2023

Strategic, target-based partnerships expand the impact of our

PROTAC® Discovery Engine

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### Genentech

A Member of the Roche Group

#### September 2015

(expanded in November 2017)
Target discovery deal



#### December 2017

Target discovery deal





#### June 2019

Target discovery deal and agriculture-focused joint-venture to fight crop disease and other challenges facing the global food supply

Partnerships to expand PROTAC® degraders beyond oncology and beyond human therapeutics

Oerth Bio exemplifies how Arvinas' PROTAC® platform can enable novel solutions in other fields

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# Our PROTAC® technology is being used to transform the future of farming with plant, fungi, and insect-specific degraders



#### **BIOAVAILABLE AND SELECTIVE**

### WEED CONTROL

Effective as herbicides

#### **BIOAVAILABLE**

Target site engagement validated, and phenotypes observed

**Certhbío** 

### **DISEASE CONTROL**

Active in multiple fungi

#### **SELECTIVE**

By combining a fungi-exclusive ligase binder with a Bayer target previously shelved due to crossover plant phytotoxicity

## INSECT CONTROL

Effective in aphid assay

#### **INSECT UPTAKE**

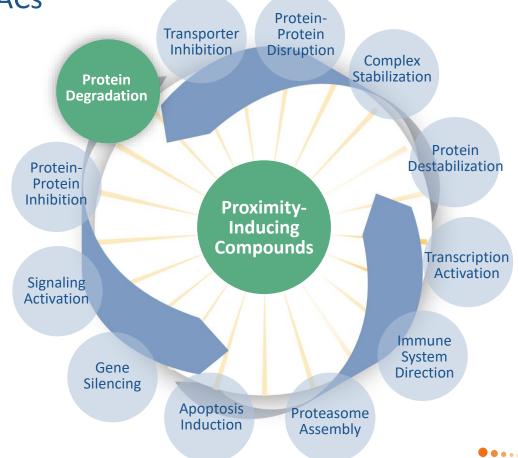
Demonstrated ability to overcome uptake & metabolism challenges

Arvinas aims to bring its expertise in proximity-inducing

compounds beyond PROTACs

 Ubiquitin tagging and protein degradation is just one potential use of proximity induction

 Many other interactions could also be mediated by proximity-inducing compounds, potentially enabling additional novel therapeutic approaches





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