American Gene Technologies

January 2017

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A New Level of Efficacy

Preliminary results

Untreated Control

AG1103 Treated

The *Disruptive* Potential of Gene Technologies

Single treatment cures that can eliminate a life time of chronic care symptom management and treatment.

Targeted, locally administered therapies that do not cause systemic toxicities.

Consistent, cost-efficient and -effective vector delivery streamlines the development and the regulatory process (80% reusable platform components speed development)

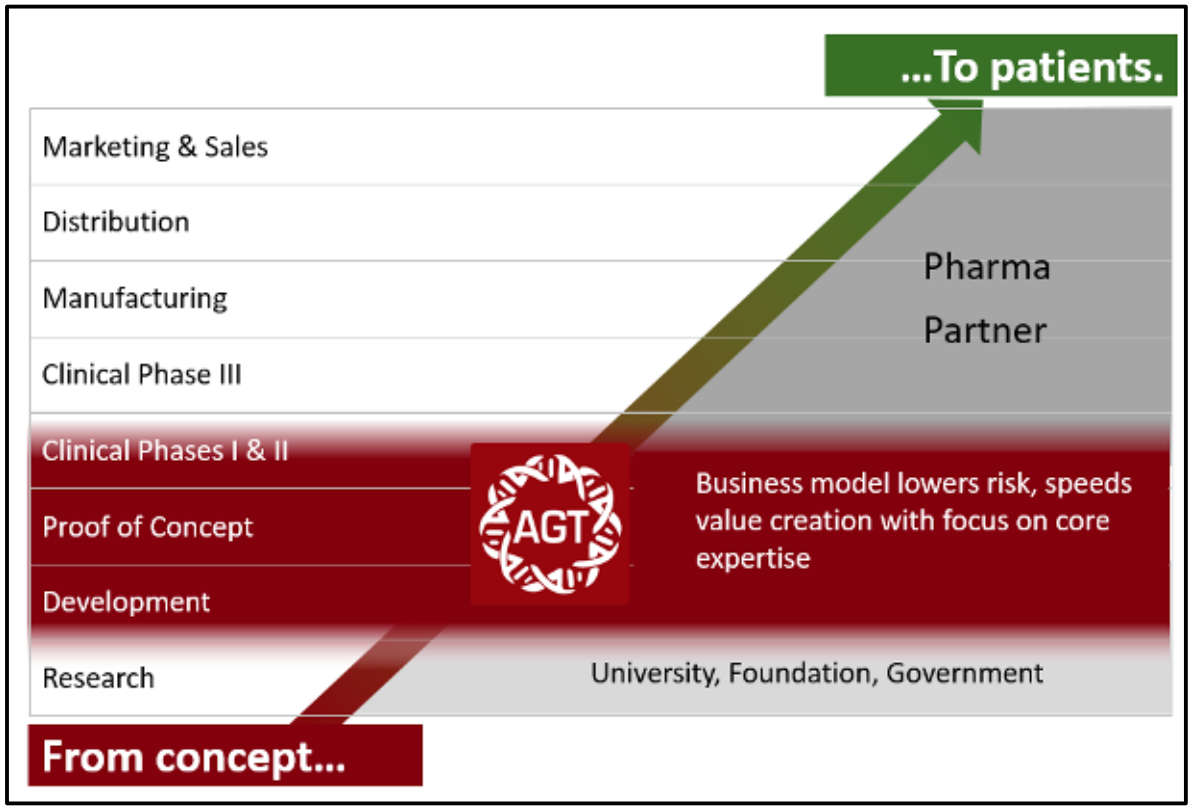
Genetic therapies will replace a half-trillion dollars worth of today's drugs in the coming decade. Genetic drug investors will be on the winning side of a game-changing event.

Better, Safer, Cheaper & Faster

Who We Are

- AGT is pioneering a proprietary therapeutic platform that delivers genetically-engineered ***cures*** to a host of disease indications.
- Our unique lentiviral vector technology platform offers improved outcomes:
  - Lenti advantages over AAV vectors:
    - Non-immunogenic (allows multiple administrations)
    - Non-inflammatory (greater therapeutic index – higher expression)
  - Transient Vector™:
    - Allows shaping PK curve (matching therapeutic needs)
    - Temporary expression (greater safety – broader disease applicability)
  - Proprietary immune stimulating vectors
    - Broad immuno-oncology applications
    - Improved safety over CAR-T approaches

Platform Yields Multiple Monetization Options



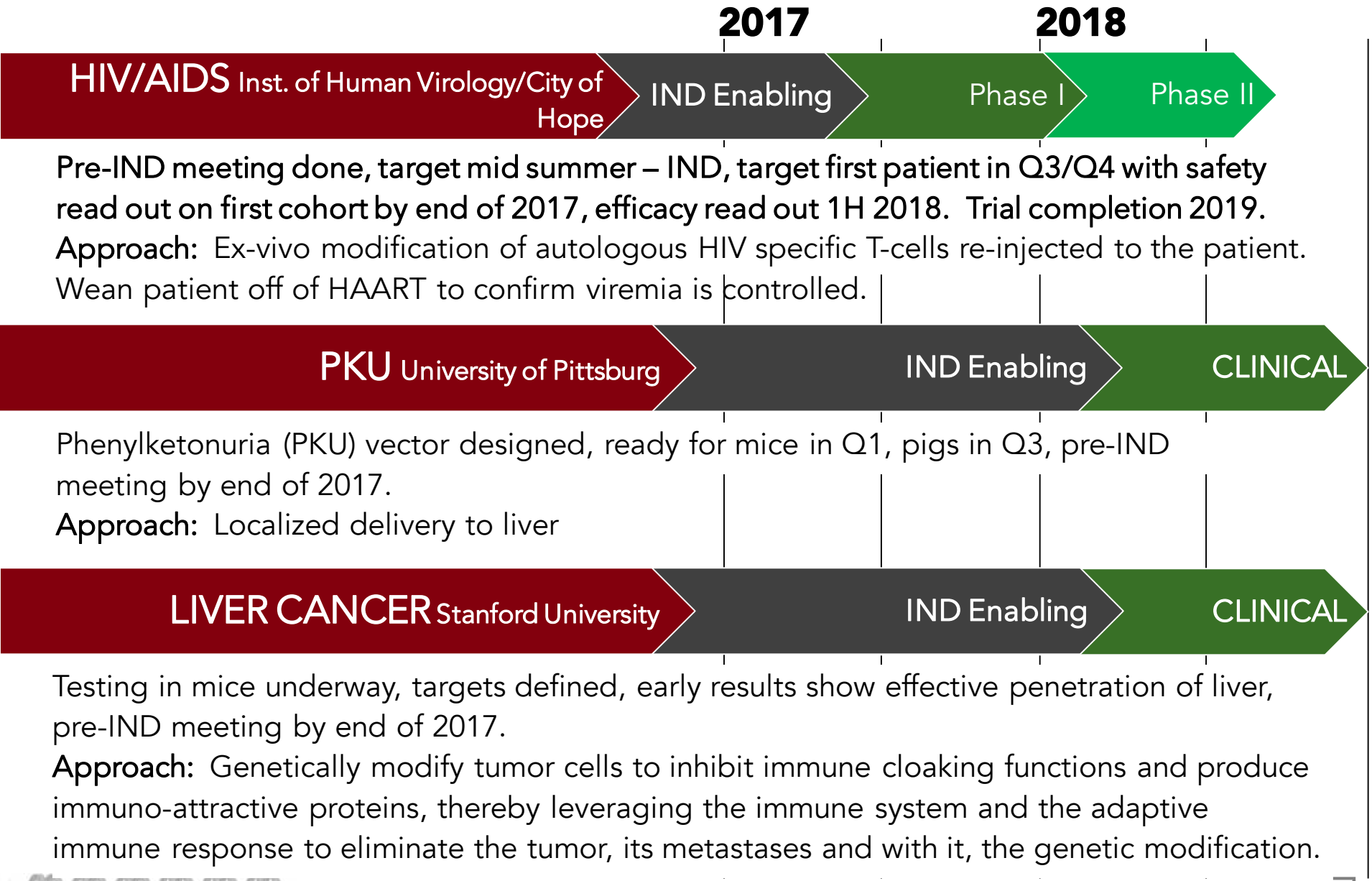
Clinical PoC positions *each* therapeutic candidate for:

- Spinout
- Pharma out-licensing
- Acquisition
- IPO

Collaborators, partners and competitors can out-license our technology.

Multiple Monetization Options After Reaching Clinical Status.

Pipeline Positions for Multiple Market Validation O



Pre-IND meeting done, target mid summer – IND, target first patient in Q3/Q4 with safety read out on first cohort by end of 2017, efficacy read out 1H 2018. Trial completion 2019.
Approach: Ex-vivo modification of autologous HIV specific T-cells re-injected to the patient. Wean patient off of HAART to confirm viremia is controlled.

Phenylketonuria (PKU) vector designed, ready for mice in Q1, pigs in Q3, pre-IND meeting by end of 2017.
Approach: Localized delivery to liver

Testing in mice underway, targets defined, early results show effective penetration of liver, pre-IND meeting by end of 2017.
Approach: Genetically modify tumor cells to inhibit immune cloaking functions and produce immuno-attractive proteins, thereby leveraging the immune system and the adaptive immune response to eliminate the tumor, its metastases and with it, the genetic modification.

Market Opportunity

Disease	Market	Patients	Current Treatment	Price	Total Available Market
HIV	US and EU HIV cases eligible for AGT Functional Cure (20% of infected population).*	400,000	$500,000 lifetime cost of treatment (not cure). Treatment has side effects (sometimes serious).	$200,000	**$80 Billion**
PKU	43,110 cases in North American (~1 in 12,500 live births), 81,861 in Europe and Russia.	125,000	$45,000 per year (dietary supplements). Biomarin Kuvan (has some effect) $330,000,000 per year in revenue.	$100,000	**$12.5 Billion**
Liver Cancer (HCC)	89,000 annual cases in US and Europe.	89,000	No efficacious treatment available.	$200,000	**$17.8 Billion per year**

* Total HIV infections worldwide: 44 million. In vivo version will allow wider commercialization.

AGT IP Portfolio

- 9 patent “families” providing multiple angles of protection over key developments and technological **innovations**
- 18 Patents in process:
  - 7 PCT Status
  - 11 Provisional Status
- Estimated IP “liquidation valuation” of $100M
- Broad, robust protection of “foundation” innovations to viral vector technologies such as “Transient Vector™” and “ImmunoTox™” (immune-regulatory vector for oncology applications).

Clinic Entry Can Yield Inflection in Valuation – ROI Opportunity

- AveXis (NASDAQ:AVXS), clinical stage – Phase1for spinal muscular atrophy (orphan), or SMA, type 1, market cap: **$1.4 billion**
- BluebirdBio (NASDAQ:BLUE), clinical stage – Phase 3 for ß – thalassemia and Cerebral ALD (orphan), along with other earlier stage products, market cap: **$2.7 billion**
- AGT, soon to be clinical stage – Phase1/2 for HIV (mass market), along with other earlier stage products, market cap: **$100 million**

Market Comparisons and Strategic Deals

Type	Company	Market Cap (1/23/17)	Market Cap IPO	Raised	IPO Date	IPO Price	52-Wk High/Low
CAR-T	Kite Pharma (KITE)	$2,290 M	$627 M	$134 M	6 / 2014	$17.00	$64.30 / $38.41
	Bellicum (BLCM)	$335 M	$471 M	$140 M	12 / 2014	$19.00	$23.11 / $7.24
	Juno Therapeutics (JUNO)	$2,070 M	$2,850 M	$265 M	12 / 2014	$24.00	$49.72 / $17.52
	Cellectis (ZVA.F)	€581 M	$1,500 M	$228 M	3 / 2015	$41.50	$29.48/ $14.43
AAV	uniQure (QURE)	$133 M	$285 M	$82 M	2 / 2014	$17.00	$19.03 / $5.30
	Spark (ONCE)	$1,770 M	$1,200 M	$161 M	1 / 2015	$23.00	$65.99/ $21.20
	RENGENXBIO (RGNX)	$527 M	$443 M	$122 M	9 / 2015	$22.00	$24.55 / $7.07
	Dimension (DMTX)	$108 M	$355 M	$72 M	10 / 2015	$13.00	$10.47 / $4.00
	Voyager (VYGR)	$307M	$360 M	$70 M	11 / 2015	$14.00	$18.25/ $8.12
	AveXis (AVXS)	$1,410 M	$413 M	$95 M	2/2016	$20.00	$72.72 / $16.11
Lentivirus	BluebirdBio (BLUE)	$2,650 M	$2,662 M(est)	$101 M	6 / 2013	$17.00	$79.70 / $35.37
	Intrexon (XON)	$2.620 M	$1,523 M	$160 M	8 / 2013	$16.00	$40.24 / $21.98

BMS + uniQure:
$100M up-front
up to $2.5Bn
for 10 drugs

Celgene + Juno:
$1Bn for 10% stake,
licensing rights

Bayer + Dimension:
$20M up-front
up to $232M for milestones
on Hemophilia A

AGT Advantages

Experience	• Ten years of Lentiviral Vector experience and platform development.
IP	• Unique IP and technology that applies to broader set of diseases with greater efficiency and efficacy.
Collaborators	• Top research collaborators from outstanding institutions with resources to leverage AGT IP.
Trials	• Multiple near-term opportunities for clinical success: HIV, Phenylketonuria, Liver Cancer.
Partnerships	• Proprietary gene-delivery technologies with opportunities for out-licensing.
Scalability	• Scalable drug development process and business model allows greater growth, rapid product pipeline development after initial clinical successes.

Collaborators

Bringing decades of research to accelerate our development

Roscoe Brady MD, PhD

National Academy of Sciences,
Chief of the Developmental and Metabolic Neurology Branch

National Institutes of Health, Lasker Foundation Clinical Medical Research Award

2007 National Medal of Technology and Innovation

Robert R. Redfield MD

Division Head and Professor of Medicine, Microbiology and Immunology

Chief of Infectious Diseases and Director of the HIV program

Presidential Advisory Council on HIV/AIDS

Gerard Vockley MD, PhD

Chief, Division of Medical Genetics

Professor of Pediatrics and Professor of Human Genetics

University of Pittsburgh

Dean W. Felsher MD, PhD

Associate Professor of Medicine (Oncology) and Pathology

Stanford University School of Medicine

Robert Clarke PhD

Dean For Research, Georgetown University Medical Center, Professor Of Oncology

Professor, Department Of Oncology

Co-director, Breast Cancer Program

Ted Dawson MD, PhD

Leonard and Madlyn Abramson Professor in Neurodegenerative Diseases

Professor of Neurology and Neuroscience
Director, Institute for Cell Engineering,
Johns Hopkins University

Frances Lefcort PhD

Professor and Department Head
Department of Cell Biology & Neuroscience,
Montana State University

Leadership

Experienced Executives, Advisors, Focused on Value Creation

Jeff Galvin

Chairman, CEO

B.A. Econ Harvard

Successful Tech Entrepreneur

Computer Scientist

Angel Investor

David Pauza, PhD

Chief Science Officer

Ph.D. Berkeley

Faculty University of Wisconsin, Madison

Associate Director IHV University of Maryland

Neil Lyons, CPA

Senior Finance Advisor

Florida Southern College

Public Biotech CFO (10 years, with international clinical trials experience
Deloitte (10 years)
Honeywell, Verizon, Alcatel

Dean Felsher, MD, PhD

Science Advisory Board

Stanford Medical School

Dean of Translational Medicine
Stanford Medical School

Professor of Oncology
Professor of Pathology
Stanford University

Conclusion

Focused business model speeds investor return

Multiple commercialization and liquidity opportunities

Strong team supports company potential