Investor Presentation
Barclay's Global Healthcare Conference

2018

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This presentation contains "forward-looking statements" of Intellia Therapeutics, Inc. within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, express or implied statements regarding Intellia's ability to advance and expand the CRISPR/Cas9 technology to develop into in vivo human therapeutic products, as well as our CRISPR/Cas9 intellectual property portfolio; our ability to achieve effective and safe liver editing, as well as genome editing in other human organs and cellular and non-cellular settings; effective genome editing with a single treatment dose or several ones; the potential timing and advancement of our preclinical studies, including continuing non-human primate studies, and clinical trials; the potential development of the ex vivo cell therapeutics through our eXtellia division, including the development of next-generation T cell therapies that address unmet needs in hematological and solid tumors, immuno-oncology and auto-immunity; the intellectual property position and strategy of Intellia's licensors; actions by government agencies; the impact of our collaborations with Novartis and Regeneron, as well as Ospedale San Raffaele, on our discovery and development programs; the potential timing of regulatory filings regarding our development programs; the potential commercialization opportunities, including value and market, for product candidates; our expectations regarding our uses of capital, expenses, future accumulated deficit and other 2017 financial results; and our ability to fund operations through mid-2020.

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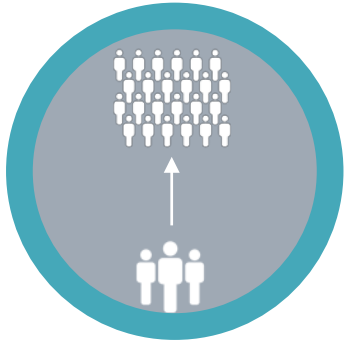
Intellia Value Drivers

Genome Editing

Proprietary Delivery System

Diversified Pipeline

Scalable Application



Committed Partnerships

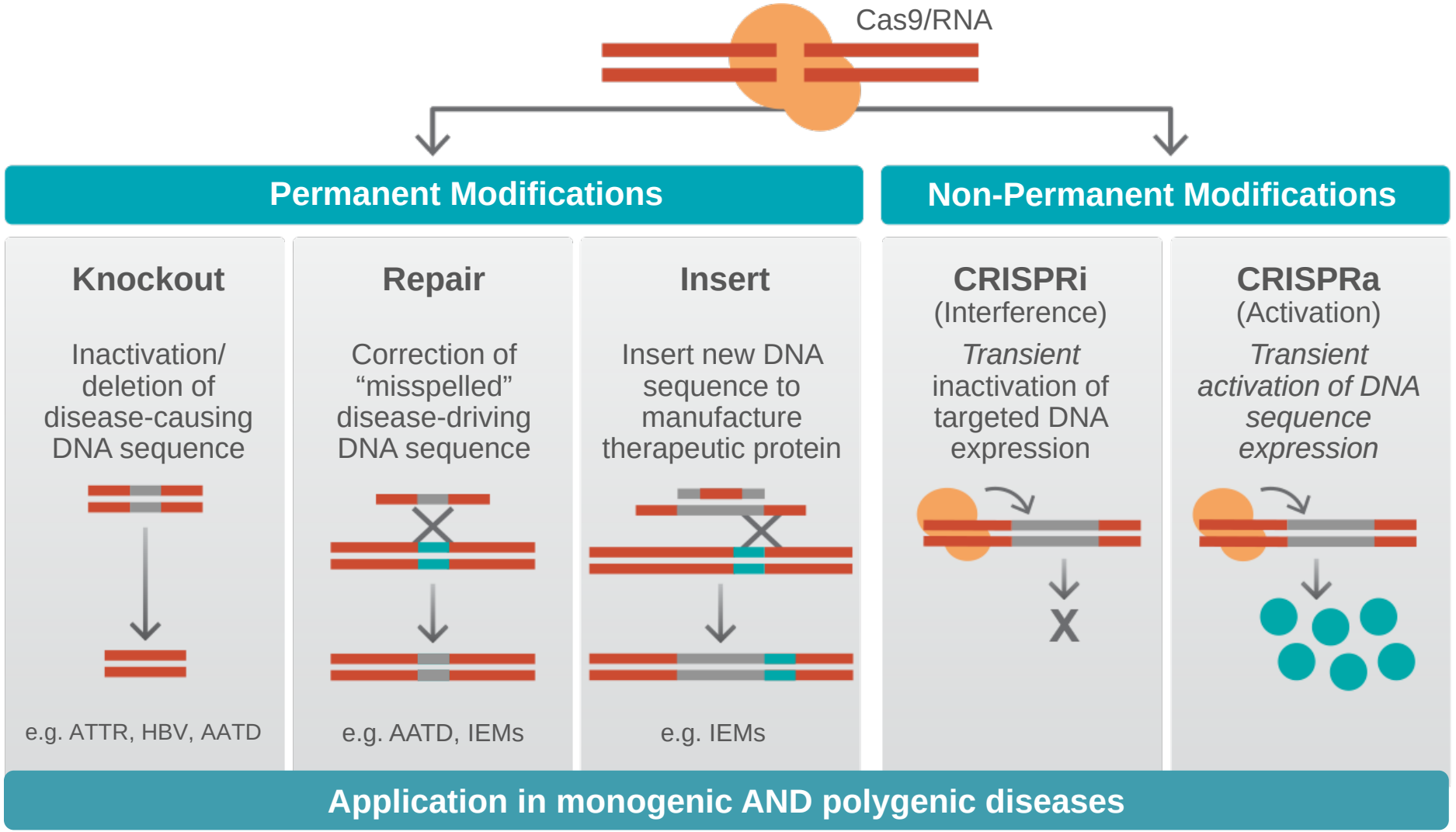
First company to demonstrate dose-dependent CRISPR/Cas9 liver editing in non-human primates

Based on publicly available information and reports of peer companies

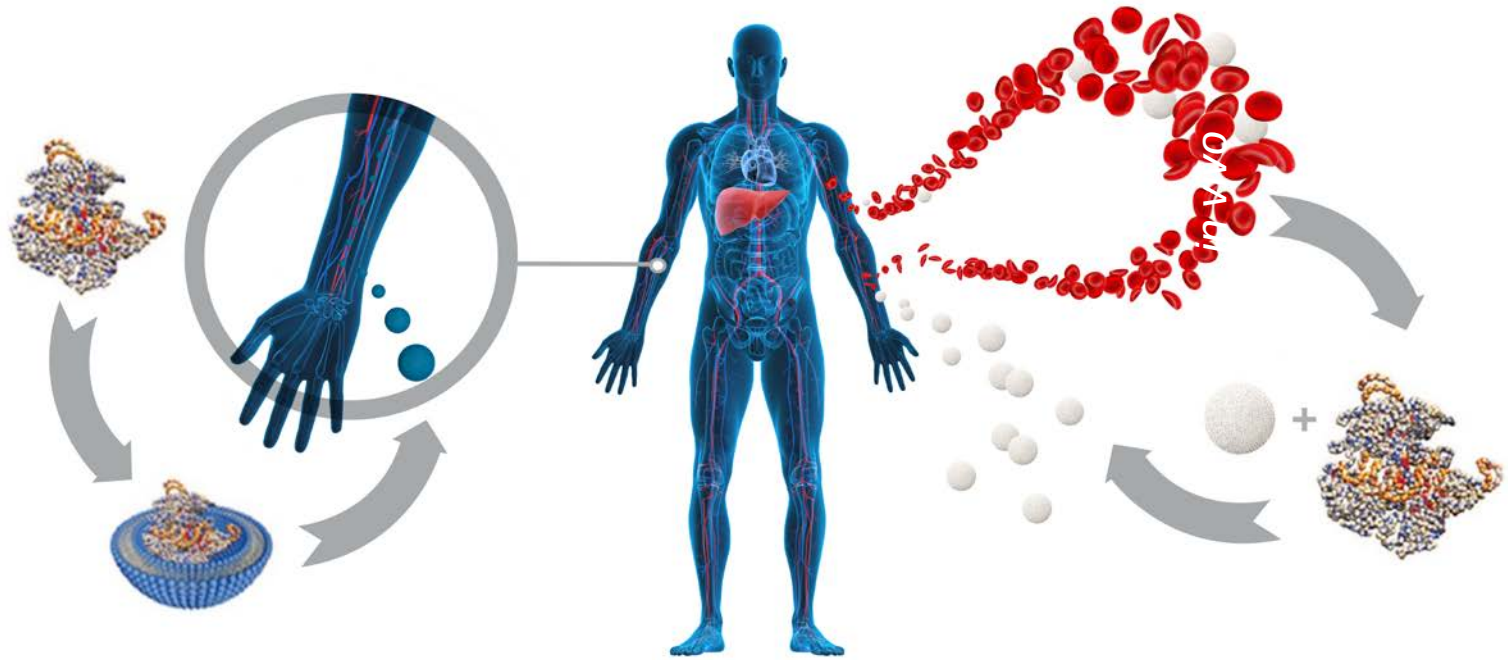
Intellia THERAPEUTICS

Genome Editing Approaches to Address Wide Spectrum of Genetic Diseases

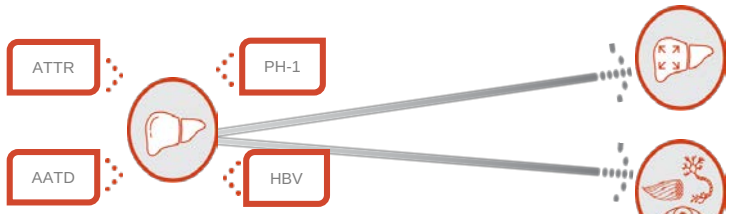
Disease-Defined DNA Editing



Diversified Opportunities with *in vivo* and *ex vivo* Delivery



in vivo



Initial focus: liver indications with unmet need

Rapid expansion into other liver indications planned

In vivo franchise expansion into other organs directly, or indirectly, through BD

ex vivo

Oncology

- T cell therapy
- NK cell therapy

Auto-Immune Disease

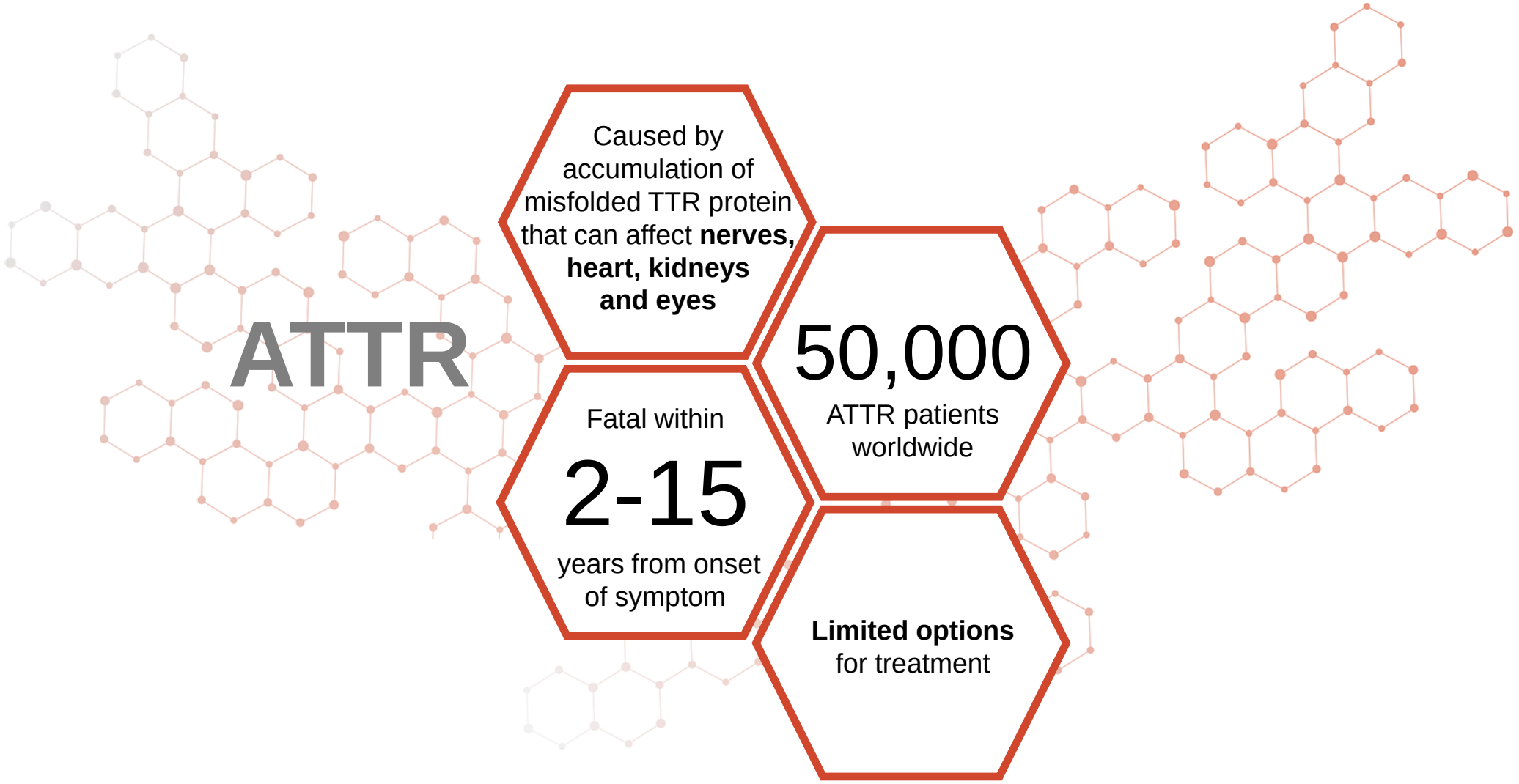
- Type 1 Diabetes
- Crohn's Disease

R&D Programs

	Programs	Program Lead	Status
in vivo	ATTR (Transthyretin Amyloidosis)	Intellia THERAPEUTICS / REGENERON	NHP Studies
	HBV (Hepatitis B)	Intellia THERAPEUTICS	Animal Model Studies
	AATD (Alpha-1 Antitrypsin Deficiency)	Intellia THERAPEUTICS	Guide Design & Evaluation
	PH-1 (Primary Hyperoxaluria Type 1)	Intellia THERAPEUTICS	Guide Design & Evaluation
ex vivo	HSC (Hematopoietic Stem Cells)	Intellia THERAPEUTICS / NOVARTIS	Late Stage Preclinical Development
	CAR-T Cells (Chimeric Antigen Receptor)	NOVARTIS	Preclinical Development
	I-O (Immuno-Oncology)	Editellia THERAPEUTICS	Preclinical Discovery
	AIID (Autoimmune and Inflammatory Diseases)	Editellia THERAPEUTICS	Preclinical Discovery

Intellia THERAPEUTICS

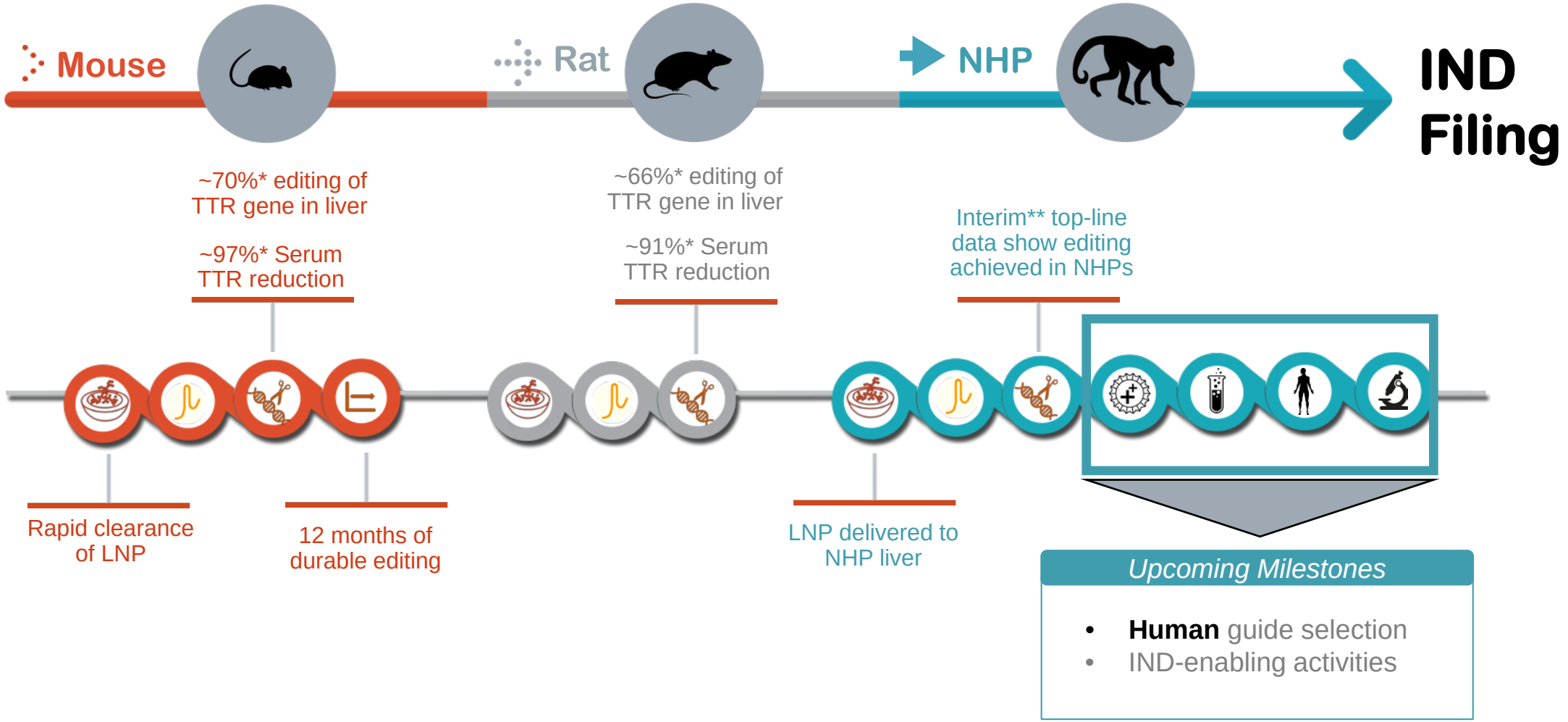
Lead *in vivo* Program: ATTR



J Neurol Sci. 2014 Sep 15;344(1-2):121-8. doi: 10.1016/j.jns.2014.06.041. Epub 2014 Jun 27

Ann Med. 2015 Nov 17; 47(8): 625–638. Published online 2015 Nov 27. doi: 10.3109/07853890.2015.1068949

Roadmap to IND Filing



*Optimized
**Prior to optimization

LNP Delivery to Liver
Edit in Liver
Durability
Guide Selection
Optimize Guide
Optimize Formulation
Human Guide Selection
IND Enabling Activities

Intellia Recent Accomplishments

In non-human primates:

- First company to demonstrate dose dependent CRISPR/Cas9 editing in non-human primates
- First company to demonstrate CRISPR/Cas9 editing via lipid nanoparticles
- First company to demonstrate *in vivo* CRISPR/Cas9 editing at a disease-causing gene in NHP livers
- Showed that redosing increased genome editing levels in the liver
- Demonstrated that CRISPR/Cas9 leads to TTR serum protein reduction
- Observed a safe and well-tolerated profile following single and repeat dosing

In rodents:

- Demonstrated well-tolerated, year-long editing durability in *in vivo* mouse studies
- Demonstrated well-tolerated *in vivo* liver genome editing in rats

Path to clinic:

- Commenced characterization of human guides in *in vivo* NHP studies for identification of development candidate

Based on publicly available information and reports of peer companies

Upcoming Goals

in vivo

- Nominate first Intellia development candidate
- Initiate IND-enabling activities for first development candidate
- Hold pre-IND meeting with regulatory authorities
- Intellia selection of hematopoietic stem cell target in Novartis collaboration
- Demonstrate *in vivo* insertion/repair edit in non-human primates
- Advance additional *in vivo* liver target(s)
- Progress delivery and editing on second organ in non-human primates

ex vivo

- Develop key data on generalized allogeneic engineered cell therapy
- Generate preclinical data on T cell candidate for immuno-oncology indication
- Deliver preclinical data for Treg-based candidate in auto-immune related disease

Industry Leading Investment Thesis

Scalable Application

Committed Partnerships

Proprietary Delivery System

Robust, Global IP Portfolio

Diversified Pipeline

Strong Balance Sheet

Accelerating the development of life-transforming therapies

Intellia THERAPEUTICS

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NASDAQ: NTLA
www.intelliatx.com