

RTA REGIONAL BUSINESS LEADERSHIP

Presented by:



2022 RTA TRANSPORTATION BREAKFAST

JULY 22 | 8 - 10 A.M. THE UMSTEAD HOTEL AND SPA

RTA IS A METROPOLITAN, PRIVATE-PUBLIC PARTNERSHIP THAT DRIVES CONSENSUS AND ACTION.



HAROLD HICKS RTI INTERNATIONAL, RTA CHAIR







OVERVIEW

RTA has served as the voice of the regional business community on transportation for more than two decades.

We are a metropolitan, **private**-public partnership that drives consensus and action – on mobility issues, opportunities, and innovations.





RTA GOLD MEMBERS















RTA GOLD MEMBERS





Kimley »Horn



REGIONAL BUSINESS LEADERSHIP

RTA GOLD MEMBERS













RIA REGIONAL BUSINESS LEADERSHIP

RTA GOLD MEMBERS















RTA SILVER MEMBERS





RTA SILVER MEMBERS





RTA SILVER MEMBERS

REGIONAL BUSINESS LEADERSHIP

RTA SENIOR REGIONAL PARTNERS

Capital Area MPO Durham-Chapel Hill-Carrboro MPO City of Durham GoRaleigh/City of Raleigh

GoTriangle

#RTABREAKFAST22

Raleigh-Durham Airport Authority Town of Cary Town of Morrisville

Triangle J Council of Governments

RTA REGIONAL BUSINESS LEADERSHIP

RTA MEMBER CHAMBERS OF COMMERCE

Angier Durham **Moore County Franklin County** Morrisville Apex **Fuquay-Varina Area Benson Area** Raleigh **Rocky Mount Area** Cary Garner Chatham Hillsborough/Orange Co. **Rolesville Area Chapel Hill-Carrboro** Holly Springs **Roxboro Area** Clayton Knightdale

Sanford Area Growth Alliance Triangle East Wake Forest Wayne County Wendell Zebulon

REGIONAL BUSINESS LEADERSHIP

BRONZE MEMBERS

Alfred Benesch & Company

Atkins

Avison Young

Biogen

Clancy & Theys Construction Company

CPL Architecture and Engineering, PC

Dewberry

Gregory Poole Equipment Company HH Architecture Highwoods Properties

McKim & Creed

PNC

Strada Architecture PLL

Trinity Capital Partners WakeMed Health & Hospitals

York Properties, Inc./McDonald-York Building Company

REGIONAL BUSINESS LEADERSHIP

EVENT SPONSORS

Credit Suisse

TowneBank

Town of Cary

JOE MILAZZO RTA EXECUTIVE DIRECTOR

REGIONAL BUSINESS LEADERSHIP

AGENDA

Speaker Introductions

Keynote Presentations

- Dewey Steadman
- Blain Newton
- Mikael Cardinal
- Thomas Kaufman

#RTABREAKFAST22

Panel Discussion and Q&A

RDU Airport Authority Patrick Hannah

Final remarks

Adjourn

SCOTT LEVITAN RTP PRESIDENT AND CEO

DEWEY STEADMAN United Therapeutics

THOMAS KAUFMAN United Therapeutics

MIKAËL CARDINAL

Unither Bioélectronique

Blain Newton Beta Technologies

DEWEY STEADMAN

Head of Investor Relations United Therapeutics Corporation

United Therapeutics: Enabling Inspiration

2022 RTA Transportation Breakfast July 22, 2022

Mission | Enabling Inspiration

United Therapeutics was founded in 1996 with one mission in mind – to save a daughter's life.

Over 25 years later, we have more than 10,000 patients on our therapies.

Last year, United Therapeutics became **a Public Benefit Corporation** dedicated to the entrepreneurial and innovative spirit of research in biotechnology and developing novel, life-extending technologies for rare lung diseases, oncology, and organ manufacturing.

Left to right: Bina Rothblatt, Martine Rothblatt, Jenesis Rothblatt

Public Benefit Corporation

Public Benefit Corporation

First public biotech or pharma to take the form of a public benefit corporation

Public benefit purpose to provide a brighter future for patients through (a) the development of novel pharmaceutical therapies; and (b) technologies that expand the availability of transplantable organs.

At the same time, we seek to provide our shareholders with superior financial performance and our communities with earthsensitive energy utilization.

Our Presence in the Triangle

* \$62,500 minimum cash compensation with a 20% cash bonus target. Excludes additional stock grants available to all employees

How We Operate | Four Commercial Platforms

Four Commercial Platforms

Balanced and Value-Creating Biotechnology Commercial Model

Sustainability At Our Core

(1) PBC = Public Benefit Corporation. (2) 2019 data.

How We Operate | Five Development Programs

			*	
	PRECLINICAL	NON-REGISTRATION	REGISTRATIO	N APPROVED
TYVASO®				
Tyvaso DPI™ PERFECT TETON 1 TETON 2				
ORAL DRUGS				
Ralinepag ADVANCE CAPACITY Ralinepag ADVANCE OUTCOMES				
PRODRUG	Mart			
RemoPro™	A MARINE			
GENE THERAPIES SAPPHIRE* AMETHYST		•		
ORGAN MANUFACTURING				
EVLP/CLES UHeart™ UKidney™ ULobe™ ULung™				
3DAP Kidney and Liver		*Registration st	udy for Canadian approval only.	UTHR: A Public Benefit Corporation 30

How We Operate | Five Development Programs

Organ Manufacturing | EVLP

Lung Bioengineering's unique centralized Ex Vivo Lung Perfusion (EVLP) service model supports transplant centers by removing barriers and providing touchpoints throughout the transplantation process in order to optimize organ utilization.

EVLP utilizes FDA-approved XPS[™] EVLP technology to increase the viability of available donor lungs.

Optimizing this process is the first step toward saving more lives through organ transplantation.

Our EVLP Team 100+ years 24/7/365 Quality of team clinical **Availability** Assurance experience Our EVLP Procedure figures as of May 31, 2022 233225 372 **DONOR LUNGS** PATIENTS At **LB1** in **EVLP LUNGS** Transplanted with Silver Spring, MD Accepted for and LB2 in **EVLP** Lungs transplant Jacksonville, FL

Organ Manufacturing | Xenotransplantation

UHeart[™]

Collaboration with the University of Maryland

Dr. Bartley Griffith of University of Maryland successfully transplanted the first genetically modified UHeart™ into a living human with two-month survival

UKidney[™]

Collaboration with the University of Alabama Birmingham

Dr. Jayme Locke of UAB announced **JAN** the first peer-reviewed study of its kind after successfully transplanting the first double UKidney™ transplant into a brain-dead human recipient in October 2021

UThymoKidney[™]

Collaboration with New York University Langone Medical Center

Dr. Robert A. Montgomery of NYU Langone successfully transplanted the first xenokidney into a brain-dead human recipient

ULobe is a development-stage engineered lung generated with a porcine lung scaffold and human allogeneic lung cells. **ULUNG** is a development-stage personalized lung composed of a 3D printed lung scaffold cellularized with either allogeneic cells or a patient's own cells.

Organ Manufacturing | ULung™

Collaboration with 3D Systems Corporation

Organ Manufacturing | Delivery Systems

Unither Bioelectronics is paving the way for the future of sustainable and reliable organ transplant delivery.

Autonomous electric aircraft organ delivery systems will help further support United Therapeutics' organ manufacturing efforts.

RECENT UPDATES

 SEP
2021
Unither successfully delivered a set of lungs via drone between two hospitals in Toronto, Canada

Collaborations:

Organ Manufacturing | Delivery Systems





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 SEP
Unither successfully delivered a set of lungs
via drone between two hospitals in Toronto, Canada

Collaborations:







CORPORATION



DEWEY STEADMAN

Head of Investor Relations United Therapeutics Corporation





BLAIN NEWTON

Chief Operating Officer Beta Technologies



MIKAËL CARDINAL

VP, E-Aviation - Organ Delivery Systems Unither Bioélectronique

Unither Bioelectronics: Enabling the United Therapeutics Organ Delivery Systems

2022 RTA Transportation Breakfast July 22, 2022



Mikael Cardinal VP – E-Aviation, Organ Delivery Systems <u>https://unither.aero</u>

Organ Delivery Systems

Developing a solution that is:

Environmentally-friendly

✤ Scalable

Economically viable

Aviation Net-Zero Target



1. Assumption based on growth projections from ATAG, IATA, ICCT, WWF, UN

2. ICAO ambition incl. efficiency improvements in aircraft technology, operations and infrastructure



CHVNC

August 2018

CHANG 276

CHING 216



Conceptual Organ Delivery Network

- Creating a revolutionary EVA-based Organ Delivery System that saves lives, protects the environment and conserves natural resources
- Target: serve 100 hospitals within the next decade
- Supporting the distribution of high value perishable organs from UT's organ production locations to hospitals across North America for transplant into patients



Centralized Organ Manufacturing Facility

eVTOL aircraft range

Deserving a Nation-Wide Transplant Network

Regina

Winnipeg





EVA Battery Improvement vs Jet-A fuel Helicopter

ASSUMPTIONS

L/D = 15 eVTOL MTOW = 6000 lbs Payload = 600 lbs Hover to Cruise Power Ratio = 7.0 Battery Cell Improvement per Year = 8%



EVA Battery Improvement vs Jet-A fuel Helicopter

ASSUMPTIONS

L/D = 15 eVTOL MTOW = 6000 lbs Payload = 600 lbs Hover to Cruise Power Ratio = 7.0 Battery Cell Improvement per Year = 8%

History in the Making: Electric Vertical Aircraft Lung Delivery



First Delivery of Human Lungs for Transplant by EVA Toronto General Hospital, September 2021

From left to right: Martine Rothblatt (CEO, UT), Dr Shaf Keshavjee, Mikael Cardinal, Andrew Sage, Kevin Smith (CEO, UHN)

"I wanted to do it for technical reasons and the results of advancing the science.

"And it's obviously very, very important to me because [the drone] was bringing me the lungs that saved my life."

Alain Hodak - First human being to receive a lung transplant via Electric Vertical Aircraft

Toronto General Hospital, Sept 2021



A BREATH IN THE SKY





MIKAËL CARDINAL

VP, E-Aviation - Organ Delivery Systems Unither Bioélectronique



THOMAS KAUFMAN

Senior Director, Corporate Real Estate United Therapeutics Corporation



UT Global Real Estate Portfolio Summary



Total Headcount by Campus



Sustainability in RTP



THOMAS KAUFMAN

Senior Director, Corporate Real Estate United Therapeutics Corporation



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PANEL DISCUSSION



SCOTT LEVITAN Research Triangle Foundation



Blain Newton Beta Technologies

DEWEY STEADMAN

United Therapeutics



HAROLD HICKS RTI International, RTA chair



JOE MILAZZO RTA (moderator)

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MIKAËL CARDINAL Unither Bioelectronique



THOMAS KAUFMAN United Therapeutics RTA REGIONAL BUSINESS LEADERSHIP

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ACCELERATED METROPOLITAN MOBILITY STRATEGY

- Identify sustainable funding for RDU Airport
- Advance enhanced regional transit system
- Promote rapid relief freeway improvements
- Support mobility innovations and pilots
- Modernize revenues for highways and streets



PATRICK HANNAH RDU AIRPORT AUTHORITY CHAIR



Traffic Recovery Trends

RDU traffic 81% of 2019; running below national traffic trends





Strategic Planning

- RDU's five-year Strategic Plans calls for investing in our people, infrastructure and community
- More construction on campus in coming months and years
- Vision 2040 projects paused for two years, now resuming
- Two new TSA checkpoint lanes in Terminal 2
- Projects underway:
 - \circ Parking
 - Ground Transportation
 - o Taxiway
 - \circ Terminal
 - \circ Roadways
 - o Primary Runway Replacement



Runway Replacement

- RDU asked the FAA for:
 - \circ Additional Length
 - Approval to conduct Environmental Assessment
 - $\,\circ\,$ Fair Share of Funding
- Letter writing campaign:
 - RTA, Research Triangle Foundation, Triangle J Council of Governments, regional business leaders
- Result:
 - Longer runway approved
 - Environmental Assessment underway
 - Hopeful for more funding
- Thank you for your support!



PATRICK HANNAH RDU AIRPORT AUTHORITY CHAIR





HAROLD HICKS RTI INTERNATIONAL, RTA CHAIR





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