Bioscience Companies
located on the campus of HudsonAlpha
It’s really easy and it’s encouraged to go around, talk to your fellow scientist neighbors, and really get help or anything that you need from the other people that work here. It’s really nice to work in a place where everybody is friendly and we work as a team.

— Sara Cooper, PhD
Faculty Investigator

If you want to be entrepreneurial, if you want to start companies, if you really want to grow technologies, this is the right field for that. Jim Hudson has done a fantastic job of creating that kind of environment. I didn’t realize how unique it was until looking back to when it wasn’t there, before HudsonAlpha.

— Troy Moore
Chief Scientific Officer, Kailos Genetics

An opportunity to be with other scientists and other companies and other entrepreneurs was something we couldn’t pass up. It has just been a great opportunity for us as we grow to learn from others. As we say, ‘As the tide rises, all the ships rise with it.’

— Marshall Schreeder
Chief Executive Officer & Co-Founder, Coversant Bio

Huntsville is a pretty unique town. I really want my kids to grow up somewhere that was cool and fun and not too big, but also a place where I can do great science.

— Liz Worthey, PhD
Founder, Chief Product Development Officer, Envision Genomics
The companies located on the HudsonAlpha Institute for Biotechnology campus can be divided into four sub-sectors of life sciences: Research, Testing, & Medical Labs/Clinics; Medical Devices & Equipment; Drugs & Pharmaceuticals; and Bioscience-related Distribution.

Companies are listed below according to their sub-sector. Throughout the book, companies are listed in alphabetical order and categorized by an icon located on the top corner of each page.

**Research, Testing, & Medical Labs/Clinics**
- Acclinate Genetics
- BioDynami
- Clinical Services Lab
- IMIDomics
- iRepertoire, Inc.
- iXpress Genes
- Kailos Genetics
- Prozone Water Products, Inc.
- Smith Family Clinic
- Sulfilatec
- Trideum Corporation
- Volatile Analysis Corporation

**Drugs & Pharmaceuticals**
- Celsion Corporation
- Foresight Biosciences, Inc.
- MVW Nutritionals
- Novocol
- Serina Therapeutics, Inc.

**Medical Devices & Equipment**
- Alimetrix
- CFDRC
- GeneCapture
- iCubate, Inc.
- Microarrays, Inc.
- SynVivo

**Bioscience-related Distribution**
- Diatherix Eurofins
- Envision Genomics
- Folio Conversant
- Kailos Genetics
- Kymanox
- Leavendary
- transOMIC Technologies
- Ubiquity Genomics
- Jackson Conference Center

To join, contact:
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Exponential growth in hereditary cancer detection and diagnostics has created significant demand by medical professionals and their patients for fast and accurate hereditary cancer detection and diagnostic services.

**Acclinate Genetics** aims to create a more efficient market for connecting healthcare providers in need of genomic screening and diagnostic services with the specialized laboratories performing such services. Acclinate leverages a comprehensive network of specialized partner labs to provide healthcare providers with a centralized source for fast, accurate, and reliable genetic screening and diagnostic services.

**LEADERSHIP**

Preti Jain, PhD  
Chief Scientific Officer, Co-Founder

Del Smith, PhD  
President, Co-Founder

**CONTACT**  
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Alimetrix provides Relevant Diagnostics Empowering Actionable Therapy®

Alimetrix is a CLIA and CAP accredited molecular diagnostic company whose mission is to alleviate patient suffering through the development of state of the art diagnostic tools. Utilizing unique disease insight, coupled with proprietary technologies, Alimetrix is able to provide exceptionally accurate, actionable test results in a timely manner. Being armed with finely detailed and accurate information allows clinicians to gain a clear understanding of the therapeutic needs of the patient. As part of our clinician partnership we seek to provide best-in-class diagnostic assays, helping to facilitate better patient outcomes and actively reduce patient suffering.

LEADERSHIP

Joel Peek, PhD
Chief Executive Officer, President & Founder

Mark McQuain, MS, PhD
Chief Technical Officer

Carol Quinter, MSC, PhD
Laboratory Director of Clinical Services

Richard Spera, MD, FACP
Medical Director

Samantha Bond, MS
Director of Microbiology

Jonas Boateng, PhD
Director of Next-Generation Sequencing (NGS)

Jason Scott, MS
Vice President, Clinical Operations

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BioDynami Corporation is a biotechnology company that provides innovative solutions for life sciences research and development. Currently, BioDynami is focusing on next generation sequencing (NGS) and molecular cloning. We provide reagents for NGS, DNA cloning, and PCR cloning. We also offer services for NGS library construction, custom vector design, and DNA cloning. Our goal is to provide the best solutions in the field to make Research and Development life easier.

Next Generation Sequencing
- Quick and efficient DNA library prep reagents for diverse needs
- Library quantification reagents
- NGS services

Molecular Cloning
- Effective and simple cloning kits for any type of DNA fragments
- Cloning vectors for common DNA cloning and large DNA cloning
- Cloning services

DNA Ladders
- Ready-to-load DNA ladders: cover from 20 bp to 20 kb with easy identification band

Services
- **Next Generation Sequencing:** DNA library prep, sequencing
- **Cloning:** any type of DNA fragment cloning; vector design and construction

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LEADERSHIP
Lisa Chen, MBA
Chief Executive Officer, Co-Founder

Jun Song, MD, PhD
Chief Technology Officer
**Technology**

**LTSL**, which stands for lysolipid thermally sensitive liposomes, is a unique liposomal technology used in Celsion’s lead product, ThermoDox®. LTSL allows for the triggered release of a drug payload through low temperature (just above body temperature) heat activation. LTSL is a proprietary heat-activated liposomal encapsulation of doxorubicin, which is currently in Phase III development for the treatment of primary liver cancer.

**TheraPlas™** is a versatile technology platform for the delivery of DNA and messenger RNA (mRNA) therapeutic via synthetic non-viral carriers and is uniquely capable of providing cell transfection capability for double-stranded DNA plasmids and large therapeutic RNA segments such as mRNA.

**TheraSilence™** is a versatile technology platform focused on delivering synthetically generated small inhibitory RNAs (siRNAs), microRNAs, microRNA mimics, and related molecules that can regulate protein expression by exploiting endogenous cell mechanisms.

**Product Pipeline**

Celsion’s pipeline includes two clinical-stage candidates targeting various oncology indications and two platform technologies for the development of novel nucleic acid-based immunotherapies and other anti-cancer DNA/RNA therapies. These include:

**ThermoDox®** is a proprietary heat-activated liposomal encapsulation of doxorubicin. Celsion is currently enrolling a 550 patient Phase III pivotal study of ThermoDox® in combination with radiofrequency ablation in primary liver cancer. ThermoDox® is also being evaluated in two Phase II studies in recurrent chest wall breast cancer in the U.S. and Europe.

**GEN-1 for Ovarian and Brain Cancers** - Positive safety and encouraging Phase I results with GEN-1 given as monotherapy in patients with peritoneally metastasized ovarian cancer. A Phase Ib trial of GEN-1 in combination with PEGylated doxorubicin in patient with platinum-resistant ovarian cancer has completed enrollment. The Company plans to initiate additional clinical studies with GEN-1 as part of a first line treatment for ovarian cancer as well as a combination treatment for platinum resistant ovarian cancer. GEN-1 has also demonstrated encouraging preclinical activity in glioblastoma multiforme (brain cancer).

**LEADERSHIP**

- **Michael H. Tardugno**
  Chairman, President & Chief Executive Officer

- **Khursheed Anwer, PhD, MBA**
  Executive Vice President & Chief Scientific Officer

- **Nicholas Borys, MD**
  Senior Vice President & Chief Medical Officer

- **Jeffrey W. Church**
  Senior Vice President & Chief Financial Officer

- **Jason Fewell, PhD**
  Vice President, Preclinical Research

**CONTACT**

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CFD Research’s mission is to develop and commercialize innovative technologies. Most of the company’s work is performed through highly competitive research contracts from government agencies. Three core focus areas are aerospace & defense, biomedical & life sciences, and energy & materials.

Bio and Energy Technologies

25 patents in the following key areas:

- Microfluidics – miniaturized sample preparation and manipulation including cell-based assays; leading product technology is SynVivo.
- Electrochemical Devices – Variety of power sources including biologically inspired prototypes; leading product technology is Bio-Battery.
- Chem/Bio Sensors – Optical and electrical sensors for detection of chemical and biological agents.
- Advanced Software Tools – Custom software tools for design analysis of material, devices, and systems.

Testing

SynVivo is currently being tested by a number of academic collaborators, small biotechs and pharma. Bio-Battery is receiving application development funding from a defense contractor.

Products

SynVivo: Realistic, dynamic, cell-based assays enabling accurate studies of cellular behavior, drug delivery and accelerating drug development cycles.

Bio-Battery: Biologically inspired power sources utilizing enzymes as catalysts to convert readily available fuels such as sugar and alcohol directly into electrical energy.
The HudsonAlpha Clinical Services Lab, LLC, provides clinical genomic testing for the improvement of health through precision medicine. The CSL is CAP accredited and CLIA licensed. It is one of the few clinical labs offering whole genome sequencing with clinical interpretation by a team of board-certified clinical and molecular geneticists. Our analysis and interpretation pipeline was developed in house, and our development team is continually building, refining, and enhancing the existing pipeline to incorporate new genomic information and to provide the most nimble tools for genomic analysis.

Services and Technologies
Sequencing is carried out in HudsonAlpha’s CSL under the direction of Shawn Levy, PhD. The HudsonAlpha Clinical Services Lab offers personalized genomic sequencing and analysis for the identification of rare undiagnosed and misdiagnosed disease. Additional genomic tests are under development.

LEADERSHIP
Shawn Levy, PhD
Executive Director

Bruce Korf, MD, PhD
Lab Director

David Bick, MD
Assistant Lab Director

Liz Worthey, PhD
Assistant Lab Director for Informatics

Andy Crouse, PhD
Business Development Director

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Diatherix Eurofins is an innovative laboratory providing accurate and actionable results in one day for infectious diseases utilizing molecular technologies, including proprietary TEM-PCR™.

**Diatherix Eurofins Distinctions:**
- Delivers one-day results
- Identifies bacteria regardless of recent antibiotic use
- Offers simplicity of single-sample collection
- Identifies difficult to culture pathogens
- Yields a higher level of analytical sensitivity and specificity

**Diatherix Eurofins Benefits:**
TEM-PCR technology is a proprietary, multiplex amplification platform designed to overcome the challenges that exist with conventional laboratory methods and real-time PCR applications.

Improved speed and accuracy of laboratory results lead to:
- Reduced antibiotic utilization
- Improved patient outcomes
- Cost reduction and avoidance
- Increased patient satisfaction
- Greater clinical value

**CONTACT**
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Follow us at @DiatherixLabs

**LEADERSHIP**

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President

Randy Ward, MT (ASCP)  
Chief Operations Officer

Stanley Lu  
Chief Information Officer

Traci Tyree  
Chief Financial Officer

Donald R. Stalons, PhD, D(ABMM), MPH  
Vice President of Operations, Clinical Laboratory Director
**Envision Genomics** is a comprehensive genomic medicine enabler for children’s hospitals committed to improving the quality and reducing the cost of healthcare by unlocking the genomic sequence for more effective patient care. Envision offers clinical implementation, clinical grade sequencing, informatics, and precision medicine care delivery training enabling physicians to practice true precision medicine.

Envision Genomics is committed to improving the quality & reducing the cost of healthcare by unlocking the utility and value of the genomic sequence for patient care.

**Envision Genomics is Designed To:**

- Help clinicians and healthcare providers diagnose rare disease, end diagnostic odysseys or reverse misdiagnoses through integration of the practice of genomic medicine when and how they need it.
- Provide partner organizations with the clinical end-to-end expertise, infrastructure and resources necessary to implement and deploy cutting edge, market differentiating clinical genomic services.
- Support practicing preventative care.

*Envision Genomics is not just a service provider—we are a comprehensive genomic medicine enabler.*

**LEADERSHIP**

Grace E. Terrell, MD  
Founder, Chief Executive Officer

Howard Jacob, PhD  
Founder, President & Chief Scientific Officer

Elizabeth Worthey, PhD  
Founder, Chief Product Development Officer

Jill Tapper, MHA, CG (ASCP)  
Founder, Chief Operating Officer

David Bick, MD  
Founder, Chief Medical Officer

Shawn Levy, PhD  
Founder

Bruce R. Korf, MD, PhD  
Founder

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Folio Conversant, formerly Conversant Bio provides biospecimens and ancillary services to researchers focused on oncology, hematology and immunology research. In 2013, Folio Conversant expanded services to include neurology, endocrinology and pulmonology. Folio Conversant provides primary tissues and cells matched with the clinical information scientists need to better validate their research so new drugs can reach the patient bedside more quickly. Most projects are prospective in nature; Folio Conversant collects and processes specimens that meet each researcher’s specific criteria for patient selection and sample preparation. Folio Conversant also continues to expand its ability to source normal biospecimens to support general immunology research. Folio Conversant is currently involved in more than 160 active preclinical or clinical studies with scientists in the U.S., Europe and Asia. Examples of past research include:

**Non-small Cell Lung Cancer**
Longitudinal collection of blood, sputum and tumor tissue helped develop companion diagnostic for EGFR targeted therapy in Phase I trials. Proved that diagnostic assay is possible on less invasive specimens (blood/sputum).

**Glioblastoma Multiforme, Hepatocellular Carcinoma, Breast Cancer (triple negative), Colorectal Cancer**
Collection of blood and tumor tissue to identify additional disease indications for lung cancer drug in a Phase III trial.

**Breast Cancer, Renal Cell Carcinoma**
Collection of tissue and treatment outcome information to validate prognostic test that identifies Herceptin and Sutent responders/non-responders for breast cancer and renal cell carcinoma, respectively.

**Mesothelioma**
Collection of blood and tumor tissue to validate PI3 kinase biomarker for novel therapeutic compound. Results were extremely promising and researcher plans to push drug from Phase I to Phase III trial because of unmet medical need.

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**LEADERSHIP**

Marshall Schreeder, Jr.
Chief Executive Officer, Co-Founder

Luke Doiron
Chief Commercial Officer, Co-Founder

Jay Scherer
Chief Operating Officer

Will Taylor
Chief Financial Officer

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Follow us at @ConversantBIO
Foresight Biosciences commercializes technology for glycobiology research with an emphasis on creating tools for engineering glycoconjugates that alter the biodistribution of administered therapeutics.

Technology
Most FDA approved protein therapeutics are glycosylated. Natural protein glycoconjugates have very specific structures that affect their function and distribution. Therapeutic proteins derived from nonhuman cells often exhibit improper glycosylation that require modification prior to administration.

The company’s technology facilitates protein posttranslational modification, glycoconjugation, and glycan analysis.

Product & Service
The company offers benchtop assays for glycoprotein terminal fingerprint analysis, recombinant enzymes, and convenient kits for identifying, repairing and modifying protein glycosylation.

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LEADERSHIP
Ronny Hughes, PhD
President

Ernest Curto, PhD
Senior Scientist
An Opportunity to Revolutionize Point-of-Care Decision Making

Infection Diagnosis currently takes 1-3 days to detect. With the ever-increasing number of super bugs and new pathogens infecting humans and animals worldwide, there is an urgent need for a portable, on-site rapid diagnostic that also reports antibiotic resistance/sensitivities.

GeneCapture has validated its proprietary breakthrough solution: CAPTURE™ technology to solve this pressing need and developed a portable medical device to rapidly identify pathogens causing infections in humans. Currently functioning in an automated prototype, with results in an hour, the system identifies highly specific pathogenic DNA/RNA signatures using an inexpensive disposable plastic cartridge. This rapid genetic matching technique has many applications in healthcare, environmental testing, food safety, and bio-warfare identification.

Our mission is to bring ‘infection detection’ out of the lab and directly to the patient location whether that’s at a doctor’s office, an airport, a cruise ship, or a battlefield.

LEADERSHIP

Peggy Sammon  
Chief Executive Officer, Founder

Krishnan Chittur, PhD  
Chief Technology Officer, Founder

Paula Koelle  
Senior Scientist

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Follow us at  
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iCubate® is changing molecular diagnostics by taking on the rapidly moving world of infectious disease. With groundbreaking technology and a flexible platform, iCubate provides a better diagnostic tool for the doctor, laboratory director and patient while saving the hospital money and time in the lab.

Technology
iCubate’s proprietary core technology, arm-PCR, was developed by the company’s founder, Jian Han, MD, PhD. This technology identifies 30 genes in one assay. It has received the Frost and Sullivan Award for Innovation and made the company a “Private Company to Watch” by Piper Jaffray.

Product
iCubate’s fully automated system provides DNA extraction, multiplexed amplification, hybridization and detection all in a closed cassette. While infectious disease detection is the company’s initial focus, the flexibility of its platform and development process allows the pursuit of many opportunities including food safety, agriculture and defense. iCubate has a solid pipeline of products including assays for additional infectious diseases and foodborne pathogens.

The iCubate System Provides:

- sample in/answer out capability
- highly-multiplexed arm-PCR technology to test multiple pathogens at one time
- technology enabling scientists to create assays that meet changing market needs
- easy-to-use platform with only minutes of hands-on time by the lab technician
- a small footprint on valuable and limited bench space in the lab
- a closed system that eliminates the risk of sample contamination and false positives

Outlook
The future looks bright for iCubate. The company earned FDA clearance in the summer of 2017 for the platform and first panel, which detects and identifies pathogenic bacteria causing bloodstream infection. iCubate is working toward early market acceptance in the U.S., continued product pipeline development and execution of the company’s Asian and European marketing sales plans.

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LEADERSHIP
Jian Han, MD, PhD
Founder, Chairman of the Board

Carter Wells
Chief Executive Officer
Improving the Lives of Millions of People with Immune-Mediated Inflammatory Diseases

IMIDomics is a unique company tackling Immune-Mediated Inflammatory Diseases (IMIDs). As an innovative leader in discovery and application of biomarkers and new targets to monitor and cure IMIDs, we create value through the combination of the world’s largest IMID biobank, extensive relevant clinical expertise, high-throughput genomic and genetic analysis, and intellectual property.

We are building the world’s most extensive and comprehensive IMIDs database of novel content. Our Focus is on six common IMIDs: Rheumatoid Arthritis (RA), Crohn’s Disease (CD), Ulcerative Colitis (UC), Psoriasis (PS), Psoriatic Arthritis (PA), and Systemic Lupus Erythematosus (SLE).

We apply ultrahigh-throughput genomic analyses to biological materials from the IMID Biobank and we measure genetic and functional genomics on a genome-wide scale. We include among others deep measurements of mRNA, microRNA, and long non-coding RNA transcripts, DNA methylation, Epigenetic markers, and Immune repertoire. We combine results from different types of genomic measurements to increase the power and to identify the contributors to desired phenotypes, drug response, disease activity, disease severity, or disease stratification.

LEADERSHIP

Sara Marsal, MD, PhD
Founder & Chief Medical Officer

Richard M. Myers, PhD
Founder & Chief Scientific Advisor

Manuel Lopez-Figueroa, PhD
Chief Operating Advisor

CONTACT

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iRepertoire uses immune repertoire sequencing technology to access the body’s immunological memory, or “logbook” of all past infection and disease. Sequencing the immune repertoire can yield insights into the nature of the body’s immune response to disease and infection. The future market for iRepertoire will be in clinical and research applications that require immune assessment such as drug treatment monitoring, immune monitoring after stem cell transplantation, vaccine studies, and biomarker development.

iRepertoire sells reagent kits and services for immune repertoire amplification of B cell and T cell receptor sequences, which are compatible with downstream Next Generation Sequencing (NGS). iRepertoire has also automated immune repertoire amplification and extraction on their sister company’s iC-processor (iCubate, Inc.).

**Products**

iRepertoire’s reagent systems allow researchers to easily and inexpensively generate their own high-throughput sequencing libraries in the convenience of their laboratory and analyze their data with iRepertoire’s proprietary software pipeline at no additional cost.

**Technology**

iRepertoire’s novel arm-PCR (amplicon rescued multiplex PCR) is very sensitive, allowing the amplification of an inclusive immune repertoire from a small sample.

**Services**

Sequencing of the entire repertoire for samples is available in addition to iRepertoire’s new service, iPair. In one of the first commercial services of its kind, paired TCR and BCR chains are sequenced from single cells.

**CONTACT**

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Follow us at @iRepertoire

**LEADERSHIP**

Jian Han, MD, PhD
Chief Executive Officer
iXpressGenes (iXG) is a bioengineering and synthetic biology company focused on Protein Crystallization Services, Instrumentation and Contract Research.

**Products & Services**

**Instrumentation**: iXpressGenes has developed a novel technique for identifying early indications of protein crystallization. This technique is now considered a best practice. The company has developed instrumentation to optimize this important phase of research and drug discovery.

**Protein Services**: iXG provides contract services and products for proteins and enzymes, from purification to structural determination. The company has exclusive access to microbes from various extreme environments on earth and on the ocean floor. Some of the extracts are producing antimicrobial activity, which has lead to an innovative research contract with the Department of Defense.

**Research**: Scientists at iXG are exploring synthetic biology solutions in the areas of healthcare, environment and defense. Current research is being conducted on crystals grown in microgravity on the International Space Station.

**LEADERSHIP**

Joseph Ng, PhD
Chief Executive Officer, Founder

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Follow us at
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Jackson Center is conveniently located in the heart of Cummings Research Park (CRP), the second largest research park in the United States. It’s no coincidence that our conference center is located in one of the world’s leading science and technology business parks.

Just as CRP is a model for transforming research into business success, Jackson Center is a model for the technical sophistication and specialized services of today’s conference centers. Jackson Center works as a “one-stop center” and can handle conference details and all off-site coordination for your meeting and it even features on-site catering.

Jackson Center provides an environment with a level of intimacy that no other meeting facility can provide. We’re dedicated solely to professional meetings, your conference attendees won’t have to mingle with wedding reception guests in the lobby or wade through vacationing guests to get to their meeting. Our size insures that you won’t be overshadowed by “mega conventions” and events. We offer flexible space to accommodate any conference needs and can handle last minute changes. Parking is a pleasure at Jackson Center, where you can pull up next to the entrance without a problem. No parking decks or long walks.

From a technology standpoint, Jackson Center is better equipped than any other facility in the area, with state-of-the-art audiovisual equipment and an IT support staff that ensures everything runs smoothly on the day of your event. Jackson Center can handle the most technically demanding meetings. In addition, our meeting space is specially engineered with appropriate lighting and acoustics, ergonomic chairs and other features.

Jackson Center — Where business class meets world class.

LEADERSHIP

Daniel Laboudiere
Director & Chef

Jamie Jones
Director of Sales

Barry Walker
Operations Manager

Melissa Bennett
Sales Executive & Accounting

CONTACT

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With a focus in the fast-growing world of next generation sequencing, Kailos Genetics, through its CLIA Services Laboratory, analyzes DNA for “genetic clues” associated with drug response, adverse response and diagnosis of disease. These clues enable physicians to proactively identify responders and non-responders to certain drug therapies, avoid serious adverse drug reactions that are genetically linked, and diagnose inherited and non-inherited diseases.

The CLIA Services Laboratory at Kailos Genetics currently provides drug metabolism/pharmacogenomic testing services for:

1. Drugs and conditions commonly associated with cardiac disease
2. Drugs and conditions common associated with mental health issues
3. Drugs commonly used to treat pain and pain syndromes

Kailos Genetics services all physician specialties and has business-to-business relationships to leverage its TargetRich™ technology in non-physician and research markets.

**Kailos Solutions**

Laboratories can now access reagents and software solutions from Kailos Genetics to develop next generation sequencing assays in their laboratories. The combination of Target Rich reagents and Kailos Blue, a cloud-based analysis and reporting software solution, provides a cost effective and highly scalable platform for next generation sequencing assay development.

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**LEADERSHIP**

Brian Pollock  
President & Chief Executive Officer

Randy C. Bachmeyer  
Chief Technology Officer

Troy Moore  
Chief Scientific Officer

Cheri Walker  
Chief Financial Officer

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**CONTACT**

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Follow us at  
@KailosGenetics
Kymanox is a premier technical products and project management company. We are experts in providing our clients in the Biotechnology, Pharmaceutical, and Medical Device industries with engineering, scientific, regulatory, and process operations support. We help bring products from bench to patient.

Core Competencies
- Quality + Compliance
- Technical Project Management
- Process Operations
- Validation

We differentiate ourselves by offering a broad range of technical services and products with turnkey project delivery. We serve clients globally from our headquarters in Durham (RTP), North Carolina and branch hubs across the USA.

LEADERSHIP
Sarah J. (Tillman) Perry
President, Owner & Operator
Stephen M. Perry
Chief Executive Officer
Ash Patel, MBA, CSCP, CMQ/QE, CQA
Senior Director, Client Services
Kevin C. Brown, PMP
General Manager
Nathan Blazei, MEng, CQA
Senior Manager, Quality & Compliance
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Follow us at @Kymanox
Leavendary provides craft brewers customized “big-brewery” biology that fits the craft brewing context. Innovative craft brewers continually produce new recipes that create new and responsive biology requirements for Leavendary. Leavendary ensures brewers have “pitch perfect” yeast, a first-class quality program, and the biology expertise they need to succeed in a highly competitive market.

Yeast
• Delivering pitch-able quantities
• Banking services
• Strain selection assistance

Bio R&D
• Custom yeast strains
• Consulting services
• Wild yeast “domestication”

Microbiology
• Full service testing
• Contaminant ID/remediation
• Drought testing

Perfect Pitches, Every Time
Craft Biologists Serving Craft Brewers
Full Service Beer Biology

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LEADERSHIP
Peyton McNully
Founder

Andy Crouse
Chief Scientific Officer
**Microarrays Inc.** is a technology company that uses precision robotics to manufacture a product called a microarray. Microarrays are orderly arrangements of capture probes usually made of DNA and/or proteins. These probes are able to "capture" biological information, allowing researchers to rapidly sort through complex samples and identify the presence or absence of targets of interest. Within healthcare, everyone from the patient to the providing institution benefits from the use of array-based tools. For the patient, the diagnostic time savings can mean the difference between a positive or negative outcome, especially in regard to infectious diseases.

**Technologies**

The technologies developed at MI span the full spectrum of array production, from early project conception to manufacturing, final quality control and product validation. MI develops all of the motion-control software, printing robotics and microfluidic deposition technologies used by MI to provide high throughput capability to any project.

**Product & Services**

**DNA/protein/antibody arrays:** Array-based tools allow scientists to better understand the fundamental aspects of cellular biology, as well as to explore the underlying aspects of human genetic disease. MI provides full custom service for organizations seeking assay development assistance.

While best known in the industry for microarray production and assay development, MI has expanded to include gene expression laboratory services.

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**LEADERSHIP**

Joel Peek, PhD  
President & Chief Executive Officer
MVW Nutritionals is a privately held company, with the mission of providing leading edge nutritional supplements and vitamins for persons who have cystic fibrosis and other gastrointestinal disorders. Our goal is to deliver exceptional product profiles, coupled with outstanding service. We believe that quality in what we do, at a reasonable price, are important, and we are committed to this mission.

About the Company

MVW is pleased to offer multivitamin products developed to address the varying needs of individuals who have CF. Please see the table below. In 2014, MVW Nutritionals introduced the first multivitamin product to address the CF Foundation’s Guidelines for “step increases” in vitamin D, and will introduce addition products and services in 2015 to support the management of serum vitamin D levels. The Company is also in the process of expanding it’s focus in 2015 to support the nutritional aspects of other gastrointestinal disorders.

Products and Availability

Our products are manufactured at certified cGMP facilities to meet the guidelines set out by the FDA. Routine testing occurs and every product receives a Certificate of Analysis (“COA”) upon release by the Quality Assurance team. In addition to making sure that each product meets its label claim when released, products also undergo stability testing to provide the confidence that the levels of vitamins and minerals needed in your care are consistent with the label through product expiration. We believe this is important, as we seek to ensure the highest standard of quality control from our manufacturers for our customers.

Outside the US, MVW Nutritionals supports the CF Community in Canada through Health Canada’s Special Assistance Program; and is working with others on product registration in several countries.

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Follow us at @MVWNutritionals

LEADERSHIP

Mike Walters
President

Melanie Vandiver
Operations

Suzanne Michel
Registered Dietician
Novocol Healthcare Inc. (NHI), a subsidiary of Septodont, is focused on partnering with pharmaceutical and device companies to utilize its specialized sterile manufacturing capabilities. Novocol Healthcare is collaborating with large multinational partners as well as niche companies to bring significant differentiation to their development projects and commercial products.

Through its sister-company Novocol Pharmaceuticals, NHI is providing its service to customers that develop both branded and generic products. NHI provides to customers complete tech transfer, regulatory and project management services as well as, CMO services for partners that require manufacturing of semi-solid dosage forms including creams, ointments, topical solutions and gels.

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Prozone Water Products Inc., founded by physicist Ron Barnes in 1977, provides unique solutions and leading edge Ozone, Germicidal UV-C, and Advanced Oxidation Process technologies relating to purification processes of fluids, air and surfaces. As a recognized industry leader, Prozone’s Hybrid Cold Plasma and AOP systems deliver sustainable, on-site production of oxidizers and DNA modification without harmful by-products. Designing safe and efficient methods for industrial and commercial water treatment, Prozone has manufactured and supplied over a million purification systems throughout the world for point-of-use drinking water, cistern and well water systems, aquatics systems, plant, fruit, and vegetable processing systems, fisheries, hatcheries, cooling towers, recreational water, waste and sewage water treatment. Through its research, Prozone continues to innovate oxidation systems technology development for International organizations such as United Nations, NASA, Universities, Corporations and the Departments of Agriculture, Defense and the Interior.

Testing
Prozone’s studies and testing focuses on Ozone and Advanced Oxidation Processes as a means of purifying water; as a biocide for Biofilms; and the destruction of harmful microbes like viruses, bacteria, molds and toxic chemicals. Elimination of Legionella, Cryptosporidium, E-coli, Pseudomonas, Staphylococcus, MRSA, C-Diff and other pathogens found in hospitals, cruise ships, recreational facilities, and rehabilitation facilities is a high priority. Prozone’s continuous study of the efficacy of Ozone and AOP technologies on the destruction of biofilms in water supply lines in cooling towers, closed loop bodies of water and throughout buildings are critical to the protection of human health. These studies are being examined to produce sustainable, on-site products that will ensure the safe and cost effective processing of vegetables, fruit, meat and preparation of food, storage, and preservation.

Key Technologies
Prozone Water Products specializes in small to medium sized ozone and hydroxyl producing systems and has ~35 US and international patents in the following key areas:

- Ozone Generation using Hybrid Cold Plasma Germicidal VUV – Designed to harness the VUV spectrum of 185nm photochemical production of ozone and 254nm germicidal DNA modification
- Ozone and UV-C Advanced Oxidation Processing (AOP) – Photochemical method in which photons in the UV spectrum convert ozone in the presence of water to Hydroxyl Radicals
- Oxygen Fed Corona Discharge Air Cooled Ceramic Flat Plate Ozone Generators
- Contacting Systems using Bypass Dynamic Venturi Injectors and Serpentine Counter-Flow Structures

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Follow us at
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LEADERSHIP
Ron Barnes
Founder & Chief Executive Officer

Cherie Brook
President
Serina Therapeutics, Inc. is a privately-held pharmaceutical company that is advancing novel therapeutics for Parkinson’s disease, restless leg syndrome, cancer, epilepsy, inflammation and pain using its proprietary, patented polymer technology. The company has created new pharmaceutical candidates using polyoxazoline (POZ) – a safe, water-soluble polymer to which a variety of small molecules, proteins, peptides and DNA can be attached. This attachment confers a unique pharmacokinetic profile that is markedly different from the parent compound. This profile may confer advantages in terms of safety and efficacy. In general, molecules attached to POZ stay in the body for a much longer period of time – and can be precisely tuned to achieve the desired therapeutic profile. In addition to progressing its CNS-focused pipeline, Serina Therapeutics has partnered its technology with two of the top ten pharmaceutical companies worldwide, and is actively seeking new partnerships.

Trials & Testing
Serina Therapeutics has advanced its first proprietary compound, SER-214, into clinical trials in patients with Parkinson’s disease (PD). SER-214 is a once-per-week injectable that provides continuous drug delivery of a potent dopamine agonist known as rotigotine. Continuous dopaminergic stimulation has been a long-sought clinical strategy in patients with PD for decades, and SER-214 is unique in this mode of action. SER-214 should obviate the phasic peak and trough of many oral drugs used to treat PD – thus preventing “wearing off” and onset of dyskinesia. The Phase 1a trial successfully completed in May 2017. Data show that SER-214 is safe and has predictable pharmacokinetic properties. Serina is planning to initiate Phase 2 trials of SER-214 in patients with Parkinson’s disease and moderate to severe Restless Leg Syndrome. For more information on the Phase 1a trial, please visit https://clinicaltrials.gov/show/NCT02579473.

Key Technology
Novel polymer drug delivery platform based on polyoxazoline - POZ. Serina Therapeutics also holds the global exclusive license to metal-catalyzed “click chemistry” for the development of POZ-therapeutics.

LEADERSHIP

Randall W. Moreadith, MD, PhD
President & Chief Executive Officer
Brendan P. Rae, PhD, JD
Chief Business Officer
Tacey X. Viegas, PhD
Chief Operating Officer
Mike D. Bentley, PhD
Chief Scientific Officer
J. Milton Harris, PhD
Chairman

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The Smith Family Clinic for Genomic Medicine, powered by HudsonAlpha, Children’s of Alabama, and UAB Medicine, has been established to use the power of genomics to solve undiagnosed and misdiagnosed cases and provide answers to families and physicians.

Mission and Vision
The Smith Family Clinic for Genomic Medicine solves diagnostic mysteries and provides long-sought diagnoses to parents and physicians for diseases that may be impossible to diagnose through other means. The clinic’s mission is not only to help find answers, but also to give patients the best clinical care, a positive medical experience and the information to make future health care decisions.

Some of the more common symptoms seen in patients at The Smith Family Clinic for Genomic Medicine include, but aren’t limited to:
- Epilepsy
- Cognitive or developmental delay
- Adult-onset neurological disease (neuropathies, dystrophies, myopathies)
- Primary immune disorders
- Congenital heart defects, cardiomyopathies, or arrhythmias
- Other unexplained or unusual disease processes

LEADERSHIP
David Bick, MD
Medical Director
Carol Aiken, CMM, CPAR
Clinic Operations Administrator
Tammy Dennis
Clinical Operations Assistant
Kelly East, MS, CGC
Genetic Counselor Lead
Meagan Cochran, MS, CGC
Genetic Counselor
Whitley Kelley, MS, CGC
Genetic Counselor
Veronica Greve, MS
Genetic Counselor

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Sulfilatec

*Inspired by biology.*

*Motivated by patients. Sulfilatec.*

Sulfilatec, Inc. is a biotech company that is dedicated to helping patients with heart and kidney diseases. Heart disease is the leading cause of death, including among patients with kidney disease. Sulfilatec is discovering and developing new therapeutics for these patients.

As a company, we are committed towards leveraging great science to the benefit of patients. Our drug development platform harnesses groundbreaking discoveries regarding the novel biologic activities of bromide that have been published in top-tier scientific journals. Our lead drug candidates are designed to act on key molecular pathways in heart failure, chronic kidney disease, and certain ESRD-associated comorbidities. Every day, we diligently work to translate these discoveries into new treatments for patients and are always open to exploring new collaboration and partnership opportunities.

**LEADERSHIP**

Chris Cummings, PhD
President & Chief Executive Officer
**SynVivo** is a physiological, cell-based microchip platform that provides a morphologically and biologically realistic microenvironment allowing real-time study of cellular behavior, drug delivery and drug discovery.

Synvivo, LLC was founded in 2014 as a spin-out from CFD Research Corporation (CFDRC) to commercialize with the Synvivo family of cell-based assays. Synvivo, whose name is derived from synthetic in vivo, is a disruptive technology with a goal to revolutionize drug discovery and precision medicine by providing the most realistic and dynamic in vitro platform for cellular behavior and drug response. The two high-tech domains of microfluidics and bioengineering have enabled Synvivo scientists to analyze and visualize how drugs behave in real-time offering a true breakthrough in drug development. Even more importantly, Synvivo is at the forefront of truly personalized, precision medicine with its technology’s ability to show, in real-time, how a patient will respond to different drugs or combination therapies.

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**LEADERSHIP**

Kapil Pant  
President & Chief Executive Officer

B. Prabhakar Pandian  
Chief Technology Officer

Gwen Fewell  
Chief Commercial Officer
At transOMIC Technologies, we believe deeply in the power of science and technology to advance the understanding of biological systems to ultimately improve the quality of life.

Our company provides innovative tools and strategies for life science researchers to help them unravel genetic complexity and to understand disease development. This mission, coupled with a good understanding of the tools that life science researchers need, drives our focus to be a research partner, delivering technologies in a cost-effective and technically supported manner to enable discovery across the genome.

**OUR PORTFOLIO**

**shERWOOD UltramiR Next Generation shRNA Tools for RNA Interference (RNAi)**

RNA interference (RNAi) is a technology used to control the expression of genes by ‘knocking down’ the production of protein that a gene codes for. Like genome-editing tools, RNAi tools are used to create cellular models for understanding our genes and the role they play in disease. Transomic Technologies is the exclusive provider of the next generation of RNAi tools created in collaboration with Cold Spring Harbor Laboratories.

**transEDIT CRISPR-Cas9 Reagents for Genome-editing**

Transomic Technologies has partnered with Dr. Greg Hannon and Dr. Simon Knott of Cold Spring Harbor Laboratories to provide a powerful and extremely versatile set of tools for genome-editing. These tools harness the newly discovered CRISPR-Cas9 technology. Genome-editing allows researchers to ‘edit’ genes in a research setting by changing the sequence of DNA for any given gene. Editing these DNA sequences gives researchers the cellular models needed for understanding disease, which eventually leads to new drugs or therapies.

**Genes for All Species**

Through an arrangement with the National Institutes of Health, Transomic Technologies houses one of the largest repositories of gene content made available to researchers across the globe. This vast collection of genes coupled with our gene-editing tools and RNA interference tools gives researchers a one-stop-shop for planning their gene-centric research experiments.

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Follow us at @transOMIC

**LEADERSHIP**

Blake Simmons  
Chief Executive Officer

Rusla du Breuil  
Chief Technology Officer
Testing & Laboratory Work

Trideum Biosciences is an award-winning pre-clinical CRO that engages Ph.D. scientists and skilled technical staff to design, troubleshoot, conduct, analyze and report the scientific data. Our customized approach for each client and the insights we provide lead to improved and faster therapeutic, diagnostic and medical device product development.

- Microbiology Testing and Analysis
- Antimicrobial Efficacy Testing
- Biofilm Testing
- Bacteriophage Testing
- Extraction of high-quality genomic material
- Customized testing protocols

Consultation for Scientific Endeavors

We have a proven track record of scientific consultation for various clients.
- Providing a path-forward for product development
- Research Study Design
- Data Review and Reporting
- Scientific Assessment of various products and technologies
- Preparation and Review of scientific documents including grants

Research & Analysis

We conduct precise and thorough GLP-compliant laboratory testing to produce reliable, high quality data. Our expertise in infectious diseases and wound care enable us to effectively assist University and government research as well as domestic and international companies seeking to bring products to the U.S. market.

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Ubiquity Genomics provides tools for targeted DNA sequencing. The company’s proprietary technology allows researchers to focus genetic and epigenetic analyses on large regions of the genome at a fraction of the cost of other commercially available approaches. Ubiquity Genomics offers customized sequencing services, as well as pre-made targeting kits. The first pre-made kit is Complete MHC, which enables scientists to sequence the entire MHC locus, a region of great importance to immunological disease research. Ubiquity also offers kits for the enrichment of human DNA from contaminated sources, such as saliva. These kits will also deplete human DNA when the research is focused on the microbiome.

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LEADERSHIP
Devin Absher, PhD
Chief Executive Officer
Volatile Analysis Corporation (VAC) is a privately held company that specializes in volatile chemical utilization, detection, measurement, and olfaction. Small, volatile (propensity to exist as gas) chemicals are responsible for all aromas/odors, and quite important in biological and industrial applications.

**Technology**

VAC is an analytical problem-solving and consulting company specializing in the detection, identification, and measurement of trace level and ultra-trace level chemicals responsible for odor and aroma. An expert staff utilizes combinations of analytical chemistry and sensory analysis to develop strategies for completely solving or mitigating costly odor problems perceived by consumers as indicative of tainted, potentially dangerous, or just unacceptably poor quality products.

VAC works with industries where aroma/odor is important. Examples include paper and packaging, pharmaceutical, food and beverage, cosmetic, apparel, manufacturing (light and heavy), and automotive. The analytical/sensory division provides deployable aroma/odor analysis and panel training. Sensory trained staff review industrial processes and coordinate odor remediation efforts. Analytical services specializes in quantification of trace level and ultra-trace level (ng/g or parts per trillion and lower) chemicals responsible for odor and aroma.

**Research & Development**

VAC is a research and development company that focuses on volatile chemical applications. Opportunities are numerous and include:

- **metabolomics** (disease diagnosis via trace level volatile chemical biomarkers present in the breath, perspiration, urine of humans and animals)
- **genetic modification impact on the volatile chemical profiles of plants and animals**
- **chemical communication** (identification and measurement of chemicals utilized for biological system communication for example pheromones)
- **olfaction and aroma activity**

Hardware and methods for concentrating and identifying volatile chemicals and their olfaction properties are also active research areas. Patent-pending technology includes devices that enhance chemical detection.

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**LEADERSHIP**

- **Katherine Bazemore**
  President &
  Chief Executive Officer
- **Matthew Shirley**
  Chief Operating Officer
- **Russell Bazemore, PhD**
  Senior Vice President of Research & Development
- **Chris Christianson, PhD**
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Follow us at
@VACHuntsville
Southern Living
Huntsville has one of the most favorable salary-to-cost-of-living ratios in the Southeast.

Top 5
Alabama is a nationally recognized workforce recruitment and training program as one of the Top Five workforce training agencies in the United States, according to Area Development, Summer 2015.

8th
Alabama ranks No.8 in the United States for biopharmaceutical job creation, according to Site Selection Magazine and Clustermapping US.

HudsonAlpha is surrounded by a community of talented, skilled and intelligent individuals motivated to apply knowledge in ways that create tangible benefits. Engineering in North Alabama propelled rockets into orbit, landed men on the moon and sent information-seeking probes into deep space. For more than 50 years, Huntsville has applied its expertise to aviation and missiles at the U.S. Army’s Redstone Arsenal, and has accomplished great feats for NASA and the Army. HudsonAlpha is applying the same passion and drive to the promise of genomics and use of biotechnology to improve the way we approach health and disease.

The Huntsville metro area has the highest per capita concentration of engineers and technology workers in the country, and more than half of Huntsville area residents have degrees in engineering and science-related fields.

The colleges and universities in Huntsville and the surrounding areas offer two-year, four-year and advanced degrees in the biosciences and related fields. Alabama is a “right to work” state. The state promotes economic growth by offering customized training and support services for new and expanding businesses.

Biosciences are a priority for the city of Huntsville, Madison County, the state of Alabama and many of our regional economic development partners. HudsonAlpha is working with the economic development partners to strengthen policies and incentives for the life sciences industry.

35 BIOSCIENCE COMPANIES LOCATED AT HUDSONALPHA
Why Locate on HudsonAlpha’s Collaborative Campus?

The primary benefit of establishing a startup, fostering an early stage company, or relocating a mature enterprise to HudsonAlpha is collaboration with leading-edge intellectual talent that provides opportunities for life sciences companies of all stages to grow and expand.

Advantages of Cummings Research Park

The 152-acre HudsonAlpha Institute for Biotechnology campus is located in Cummings Research Park, the second largest research park in the United States. Cummings Research Park co-locates Fortune 500 companies with local and international businesses specializing in a range of high-tech industries: aerospace and defense, hardware and software development, engineering, and research and development. The HudsonAlpha campus is minutes from the Port of Huntsville (Huntsville International Airport and International Intermodal Center) and convenient to Interstate 565, Interstate 65, and the Tennessee River Waterway system.

Grow with Us

Locating on HudsonAlpha’s campus offers any size company access to the cutting edge of biotechnology and flexibility to grow. Superior shared amenities and administrative support, unavailable in conventional office settings, power your progress and provide space for expansion.

Huntsville is one of top metros to “Power the U.S. Economy”

— Bloomberg Business, September 2015

HudsonAlpha voted one of “The Best of R&D in Alabama”

— Southern Business Development, Spring 2015

HudsonAlpha Campus is part of the 2nd largest research park in the United States and 4th largest research and technology park in the world.

“HudsonAlpha coordinates closely with Associate Companies to foster growth and ensure success.”

— Carter Wells

Vice President for Economic Development, HudsonAlpha
Culture of Collaboration
Acquisition, analysis, and application of genomic research happening here inspires innovations in life sciences companies. HudsonAlpha offers turnkey or build-to-suit office/lab space on a state-of-the-art biotech campus with an energizing environment, blending research, education, medicine, and commercialization.

Growth Impact Study

Unrivaled Inspiration & Business Advantages

- Campus address with shared spaces and centralized services including: atrium/cafe, security, meeting spaces, waste management and recycling, and shipping and receiving.
- Labs built to NIH standards for biosafety, with single pass air and emergency power, LEED certified space, and electric vehicle (EV) charging station on campus.
- Administrative services and strategic support: investor forums, job postings, marketing resources, networking, world-class human and plant sequencing and analysis services.
- Fully-managed, on-site IT services with multiple, diverse path ISP up to 200G, customized net topologies, VPNs, phone, and voicemail that provides reliability, control, capacity, and speed.
Next door to discovery - with space, talent, and bandwidth to grow.

To learn more about the advantages of HudsonAlpha and locating your bioscience company in Huntsville, Alabama, visit hudsonalpha.org/innovate.

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