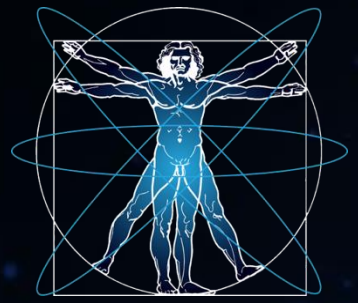


Allosteric Bioscience, Inc

First In Class Therapy For Sarcopenia And Muscle Loss In Aging Populations

Allosteric Bioscience is developing a first-in-class small molecule GCPII inhibitor to preserve muscle mass and function, aiming to deliver a disease-modifying therapy for sarcopenia. Based on research from Johns Hopkins University, GCPII has been identified as a key regulator of metabolic pathways driving muscle degeneration. Preclinical studies show that GCPII inhibition preserves muscle function and extends lifespan by ~20% in aging models. The company is advancing lead candidates toward IND-enabling studies and first-in-human clinical trials.

GCPII Inhibitor Platform
Platform

Johns Hopkins Licensed

Disclaimer

Forward-Looking Statements

The information contained in this communication is for information purposes only and may contain certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including, but not limited to, statements as to future operating results and plans that involve risks and uncertainties. We use words such as “expects”, “anticipates”, “believes”, “estimates”, the negative of these terms and similar expressions to identify forward looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to differ materially from any future results, performance or achievements expressed or implied by those projected in the forward-looking statements for any reason. References herein to “the Company,” “we,” “our,” “us” and similar words or phrases are references to Allosteric Bioscience, Inc. and/or its subsidiaries, unless the context otherwise requires.

Overview

Science, Unmet Medical Need, and Development Plan

Scientific Foundation

Allosteric Bioscience is developing a first in class small molecule inhibitor of GCPII, a metabolic pathway regulator involved in progressive muscle degeneration. Research discoveries at Johns Hopkins University identified GCPII as a critical component of metabolic signaling that influences muscle preservation. Preclinical studies demonstrate that inhibition of GCPII preserves muscle mass and function and improves survival in disease models.

Unmet Medical Need

Sarcopenia, the age-related loss of skeletal muscle mass and strength, affects hundreds of millions of people worldwide and represents one of the largest untreated conditions in aging medicine. Muscle degeneration drives frailty, falls, hospitalization, and loss of independence in aging populations. Despite its scale and clinical impact, no approved therapies directly target the biological mechanisms responsible for muscle degeneration.

Development Plan

Lead Optimization: Complete lead optimization and select a final GCPII inhibitor development candidate.

IND-Enabling Studies: Conduct toxicology and pharmacology studies, expected to take approximately 8–10 months.

Clinical Trials: Initiate first-in-human clinical trials approximately 14 months post-financing, assuming successful preclinical study completion.

The Problem

Muscle Degeneration in Aging

Central Biological Driver of Aging

Loss of skeletal muscle mass and strength is one of the central biological drivers of aging related decline. Sarcopenia contributes directly to frailty, falls, hospitalization, loss of independence, and increased mortality in older adults.

As global populations age, the prevalence of muscle degeneration is increasing rapidly. Sarcopenia now affects hundreds of millions of people worldwide, yet there are currently no approved pharmaceutical therapies that directly address the biological mechanisms responsible for muscle loss.

No Approved Therapies

Zero disease-modifying therapies currently approved for sarcopenia

Global Aging Population

1.4B+

People over age 60 expected by 2030

Healthcare Impact

- Increased hospitalization rates
- Rising healthcare costs
- Loss of independence

Scientific Foundation

Johns Hopkins Discovery of the GCPII Muscle Pathway

Dr. Barbara Slusher

Director, Johns Hopkins Drug Discovery

The lead therapeutic foundation for Allosteric Bioscience originates from research conducted in the laboratory of Dr. Barbara Slusher at Johns Hopkins University.

Research Findings

Research findings demonstrated that increased GCPII activity is associated with progressive loss of muscle mass and function. Experimental studies further showed that pharmacologic inhibition of GCPII can preserve muscle tissue and prevent biological processes associated with sarcopenia.

Groundbreaking Discovery

Dr. Slusher, Director of Johns Hopkins Drug Discovery, and her research team identified the enzyme glutamate carboxypeptidase II (GCPII) as a critical regulator of metabolic signaling involved in muscle preservation and degeneration.

Therapeutic Opportunity

These discoveries created the opportunity to develop small molecule inhibitors targeting the GCPII pathway as a therapeutic strategy for preventing muscle degeneration.

Preclinical Validation

GCPII Inhibition Preserves Muscle Mass and Function

Preclinical studies evaluating inhibition of the GCPII pathway demonstrate preservation of muscle mass and improvement in muscle function in animal models of muscle degeneration.

In disease models, treatment with GCPII inhibitors prevented the progressive decline in muscle performance typically associated with aging and neuromuscular disease.

In an Aging Mouse Model, inhibition of GCPII resulted in preservation of muscle function and approximately a 20 percent improvement in survival, supporting the potential of this pathway as a therapeutic target for muscle wasting conditions.

These results provide early validation that pharmacologic modulation of the GCPII pathway may alter the biological mechanisms responsible for muscle degeneration.

In Vivo Animal Model Data

Improved Muscle Performance
Compared with untreated animals

~20% Improvement in Longevity
In the mouse aging model

Mechanism of Action Validated
Targeting metabolic signaling in skeletal muscle

Development Roadmap

Advancing GCPII Inhibitors Toward Clinical Development

➢ **Current Program Status**

Allosteric Bioscience is currently advancing multiple GCPII inhibitor candidates through lead optimization in collaboration with the originating Johns Hopkins research team. The program focuses on selecting a final development candidate, supported by backup compounds within the series.

➢ **Preclinical Development**

Following candidate selection, the company plans to initiate IND enabling toxicology and pharmacology studies required for regulatory submission. These studies are expected to take approximately eight to ten months.

➢ **Clinical Entry Timeline**

Assuming successful completion of preclinical studies, the company anticipates initiating first-in-human clinical trials approximately fourteen months following completion of the seed financing.

Development Pathway

1

Current Stage

Lead optimization with several candidate compounds

2

Next Milestone

Selection of final development candidate

3

Preclinical Program

IND-enabling toxicology and pharmacology studies

4

Clinical Entry

Targeting 14 months for initiation of human clinical trials

Market Opportunity

Sarcopenia: A Large and Growing Medical Need

Massive Global Impact

Sarcopenia, the progressive loss of skeletal muscle mass and strength, **affects hundreds of millions of individuals worldwide** and represents one of the largest untreated conditions associated with aging.

Muscle degeneration contributes directly to **frailty, falls, hospitalization, and loss of independence** among aging populations. As global demographics shift toward longer life expectancy, preservation of muscle mass and function is becoming a critical determinant of healthy aging.

Despite the scale and medical impact of sarcopenia, there are currently **no approved** pharmaceutical therapies that directly target the biological mechanisms responsible for muscle degeneration.

The growing adoption of **GLP-1 therapies for obesity and metabolic disease** has also increased awareness of muscle loss as a clinical concern, further highlighting the need for therapies that preserve muscle biology during weight loss and aging.

Key Market Signals

- **Hundreds Of Millions Affected Globally**
- **Rapid Growth In Aging Populations Worldwide**
- **No Approved Disease-modifying Therapies**
- **Increasing Clinical Interest In Muscle Preservation**
- **Expansion Opportunities In Related Conditions**

Intellectual Property

Exclusive Johns Hopkins License to GCPII Pathway Technology

Exclusive Global License
From Johns Hopkins University

Allosteric Bioscience holds an **exclusive global license** from Johns Hopkins University covering intellectual property related to inhibition of the GCPII pathway for the prevention and treatment of muscle degeneration.

The licensed technology originates from research conducted in the laboratory of **Dr. Barbara Slusher** and includes discoveries linking GCPII activity to the biological mechanisms responsible for progressive muscle loss.

Sponsored Research Agreement

The company is advancing development under a Sponsored Research Agreement with the originating Johns Hopkins laboratory, allowing continued scientific collaboration and support for the optimization of GCPII inhibitor compounds.

IP Expansion Strategy

Additional patent filings are planned to strengthen the intellectual property estate around GCPII inhibition for sarcopenia and related muscle wasting indications.

Global Coverage

Therapeutic Focus

Ongoing Innovation

Leadership

Repeat Biotech Founders with Public Market Outcomes

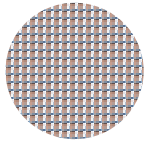
Executive Leadership and Scientific Expertise, Allosteric was founded by repeat biotechnology entrepreneurs and physician-scientists with deep experience in drug discovery, company building, capital formation, and strategic transactions.

Arthur P. Bollon, PhD

President and Co-Founder

Molecular geneticist and serial biotechnology entrepreneur with more than three decades of experience in biomedical research, drug development, and company formation

- Founded or co-founded multiple biotechnology companies
- Led Cytoclonal Pharmaceutics through public markets into OPKO Health
- Executed collaborations with Bristol Myers Squibb and Merck



Bruce Meyers

Executive Chairman and Co-Founder

Entrepreneur and investor with decades of experience in company and capital formation, as well as strategic transactions

- Previously co-founded Cytoclonal Pharmaceutics with Dr. Bollon
- Guided company through public markets to OPKO Health combination
- Founder of Meyers Investments Family LP

Peter P. Sordillo, MD, PhD, MS

Co-Founder and Scientific Advisor

Physician-scientist with expertise in oncology, inflammation biology, and metabolic disease

- Clinical and research work on degenerative and metabolic mechanisms
- Informs Allosteric's focus on pathways that drive muscle degeneration
- Supports translational and clinical strategy

Strategic Opportunity

Positioned for Partnership in Aging Biology and Muscle Preservation

Emerging Market Focus

The development of therapies that **preserve muscle mass and function** is emerging as an important focus within aging biology, metabolic medicine, and neuromuscular disease research. Pharmaceutical companies are increasingly investing in therapeutic programs that address the biological drivers of aging-related disease.

Novel Therapeutic Mechanism

The **GCPII pathway represents a novel therapeutic mechanism** targeting the metabolic processes that contribute to progressive muscle degeneration. By advancing GCPII inhibitors toward clinical development, Allosteric Bioscience is positioning the program as a potential partnership opportunity for pharmaceutical companies focused on aging biology, neuromuscular disease, and metabolic health.

GLP-1 Therapy Connection

Interest in muscle preservation therapies is also increasing as **new metabolic treatments such as GLP-1 drugs** have highlighted the clinical importance of maintaining lean muscle mass during weight loss and aging.

Competitive Advantage

Direct vs. Indirect Approaches to Sarcopenia

ABI's Differentiated Approach

First-in-class GCPII inhibitors targeting a root cause of sarcopenia

- Prevent age-related elevated glutamate accumulation, a key driver of muscle degeneration
- Directly addresses underlying biology of sarcopenia
- Potential disease-modifying therapy, not just symptomatic improvement

Key Takeaway

Allosteric Bioscience is the only program directly targeting the metabolic driver of sarcopenia (elevated GCPII → elevated glutamate), positioning it as a potentially first disease-modifying therapy in the field.

Current Competitive Landscape (Indirect Approaches)

Inflammation Modulation

TNF Pharmaceuticals – MYMD-1

- TNF-α inhibitor targeting inflammation
- Addresses downstream effects, not root cause

Hormonal Therapy

Lipocine – LPCN 1148

- Testosterone prodrug
- Supports muscle mass but does not prevent degeneration

Receptor Activation / Function Improvement

Biophytis – Sarconeos (BIO101)

- Improves muscle function
- Limited impact on disease progression

Combination / Metabolic Approaches

Rejuvenate Biomed – RJx-01

- Metformin + galantamine
- Some gains in muscle mass, indirect mechanism

Myostatin / Activin Pathway Inhibition

Keros Therapeutics – KER-065

Eli Lilly – Bimagrumab

- Increase muscle mass by blocking negative regulators
- Do not address glutamate-driven degeneration
- Bimagrumab no longer pursuing sarcopenia indication

Allosteric Bioscience

First-in-Class Platform

GCPII inhibitors targeting muscle degeneration in aging with validated preclinical results

Multiple Lead Compounds

Advancing through optimization with first-in-human trials targeted for 14 months

Johns Hopkins License

Exclusive global license with ongoing research collaboration

Proven Leadership

Repeat founders with prior public market outcome

Allosteric Bioscience

Development Timeline and Value Inflection		
Development Stage	**Estimated Timing**	**Value Created**
Lead Optimization	ongoing	Final GCPII inhibitor candidate identified
IND-Enabling Studies	8–10 months	Safety and pharmacology package completed
Clinical Entry	14 months	First-in-human clinical trial begins

Development Activity	**Objective**
Lead Optimization	Finalize GCPII inhibitor candidate from current compound series
Candidate Selection	Identify development candidate supported by backup molecules
IND-Enabling Studies	Conduct toxicology and pharmacology studies required for regulatory submission
Regulatory Preparation	Prepare IND documentation and clinical trial planning
Clinical Entry	Initiate first-in-human clinical trial