

New Drugs for Acute Kidney Injury and Chronic Kidney Disease

December 2025

Notes about forward looking statements

This presentation contains forward-looking statements within the meaning of applicable Canadian securities laws regarding expectations of our future performance, liquidity and capital resources, as well as the ongoing clinical development of our drug candidates targeting the dipeptidase-1 (DPEP1) pathway, including the outcome of our clinical trials relating to LSALT peptide (Metablok) and cilastatin, the successful commercialization and marketing of our drug candidates, whether we will receive, and the timing and costs of obtaining, regulatory approvals in Canada, the United States, Europe and other countries, our ability to raise capital to fund our business plans, the efficacy of our drug candidates compared to the drug candidates developed by our competitors, our ability to retain and attract key management personnel, and the breadth of, and our ability to protect, our intellectual property portfolio. These statements are based on management's current expectations and beliefs, including certain factors and assumptions, as described in our most recent annual audited financial statements and related management discussion and analysis under the heading "Business Risks and Uncertainties". As a result of these risks and uncertainties, or other unknown risks and uncertainties, our actual results may differ materially from those contained in any forward-looking statements. The words "believe", "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We undertake no obligation to update forward-looking statements, except as required by law. Additional information relating to Arch Biopartners Inc., including our most recent annual audited financial statements, is available by accessing the Canadian Securities Administrators' System for Electronic Document Analysis and Retrieval ("SEDAR") website at www.sedar.com.

A critical gap in kidney treatment

There is a lack of effective treatments to prevent or stop the progression of acute kidney injury (AKI) and chronic kidney disease (CKD).

Patients with kidney failure must undergo dialysis while waiting for a kidney transplant in order to survive.

Arch Biopartners is pioneering a new pharmaceutical drug market targeting acute and chronic kidney injury.

Millions face acute and chronic kidney disease every year

Acute Kidney Injury (AKI)

- Affects approximately 14–16 million people each year in the U.S. and E.U.^{1, 2}
- No approved treatments; patients often require dialysis or transplant to survive kidney failure.

Chronic Kidney Disease (CKD)

- More than 800 million people globally, have chronic kidney disease – the leading cause of kidney failure.^{10, 11}
- Current therapies slow progression; Arch is developing next generation drugs that act on a direct cause of CKD.

Sources

Arch has two AKI drugs in Phase II and a next generation CKD platform.

Two Phase II clinical trials focused on AKI, which affects millions of patients each year.

LSALT peptide (Phase II)

Addressing inflammation related AKI, which occurs in up to 30% of cardiac bypass surgery patients.

Cilastatin (Phase II)

Repurposing cilastatin to prevent toxin-induced AKI caused by commonly used drugs.

Next generation drugs for CKD.

CKD Platform

Targeting a new inflammatory pathway directly implicated in the progression of diabetic kidney disease.

LSALT peptide is in a Phase II trial to protect kidneys from CS-AKI.

Up to 30% of cardiac surgery (CS) patients on bypass machines experience acute kidney injury (AKI).^{3,4}

- Over one million cardiac surgeries, including bypass procedures, are performed each year.⁵
- No drugs are currently approved to prevent AKI during cardiac surgery.
- Phase II trial, designed for up to 240 patients, currently recruiting across Canada. Trial details: [Clinicaltrials.gov](https://clinicaltrials.gov)
- More about LSALT peptide at archbiopartners.com/lsaltpeptide

Sources

LSALT peptide targets Dipeptidase-1 (DPEP1).

Targeting a novel pathway to block kidney inflammation

Arch Scientists' publication in *Cell* (2019): DPEP1 mediates white blood cell adhesion in the kidney, driving inflammation and AKI.⁶ LSALT peptide targets DPEP1 to inhibit inflammation and AKI.

Watch LSALT peptide preventing inflammation:

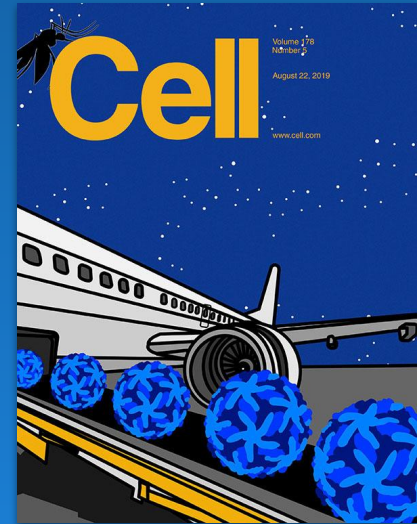


■ Inflammatory White Blood Cells
■ Healthy Blood Vessels

CLICK IMAGE TO WATCH VIDEO

Sources

Publication in CELL



Cell, August 2019

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Cilastatin: a repurposed DPEP1 inhibitor in a Phase II trial for drug toxin-induced AKI.

Drug toxin-induced AKI is a common complication of widely used antibiotics, chemotherapy, and other nephrotoxic drugs, with no approved treatments.

The PONTiAK trial is testing cilastatin to prevent drug-induced (toxin-related) AKI, a frequent complication in hospitalized patients. Recruitment began in July 2025 at sites in Alberta, led by investigators at the University of Calgary.

The study is independently funded and managed, with Arch supplying cilastatin to support the trial.

- Trial details: [Clinicaltrials.gov](https://clinicaltrials.gov)
- Info: archbiopartners.com/cilastatin

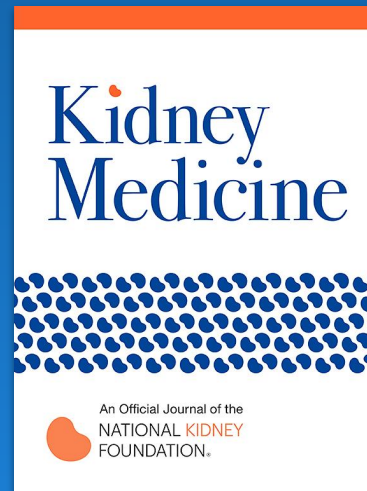
Repurposing cilastatin as a treatment for drug-induced AKI

Cilastatin inhibits nephrotoxin uptake by kidney cells, an off-target effect that may prevent AKI caused by widely used antibiotics, chemotherapy drugs, and contrast agents used in medical imaging.

Pre-clinical studies (*JCI*, 2018) showed cilastatin reduced kidney toxin uptake and inflammation.⁸ A 2024 systematic review of human data published in the NKF Journal, *Kidney Medicine* analyzed 10 studies involving over 6,800 patients. Cilastatin demonstrated strong safety and nephroprotective potential, with up to a 74% reduced risk of AKI in clinical settings.⁹

Sources

Publication in NKF:
Kidney Medicine



Kidney Medicine, Dec. 2024
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Arch's third asset: a next generation chronic kidney disease drug platform.

Arch's CKD platform targets interleukin-32 (IL-32), a human cytokine directly implicated in kidney inflammation and diabetic kidney disease (DKD).

- 800M people affected globally; 35–38M in the U.S.^{10, 11, 12}
- Diabetes drives up to 40% of CKD.¹³
- Current CKD treatments do not target the IL-32 mechanism.

Arch's IL-32 strategy advances a therapeutic approach that is critical for preventing irreversible structural organ damage and slowing the progression toward kidney failure.

Sources

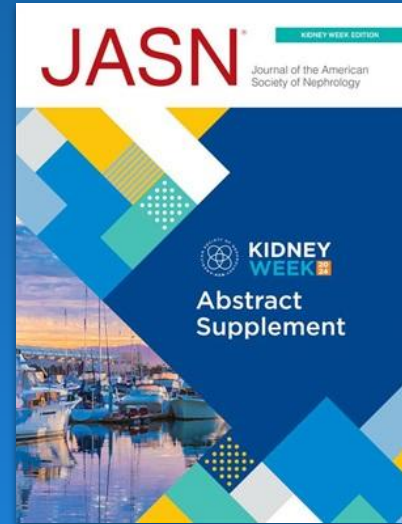
IL-32 as a novel driver of diabetic kidney disease

Interleukin-32 (IL-32) has been identified as a potential mediator of lipid droplet accumulation and chronic inflammation in kidney cells, key processes underlying diabetic kidney disease (DKD), the leading cause of kidney failure worldwide.^{13,14,15}

Evidence from patient samples and disease models confirms IL-32's role in kidney injury, establishing a mechanistic link between metabolic stress, inflammation, and tubular damage. These findings, published in the *Kidney Week Abstract Supplement of The Journal of the American Society of Nephrology* (2024), highlight IL-32 as a potential new target for DKD.

Sources

Abstract in JASN



JASN, October 2024

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Arch's leadership in kidney therapeutics is protected by strong patents.

LSALT peptide

Composition and method-of-use patents. Approval for the CS-AKI indication could also support use of LSALT peptide in the lungs, liver, other AKI indications, and sepsis.

Cilastatin

Method-of-use patents to repurpose cilastatin as a treatment to prevent AKI. No prior commercial history of cilastatin as a stand-alone drug product.

CKD Platform

Patents covering both composition and method-of-use for targeting IL-32. Includes several therapeutic approaches to treat CKD and other metabolic disease indications.

Next steps: Completing Phase II AKI trials and advancing the IL-32 CKD program.

Arch's programs target the leading causes of acute and chronic kidney injury, addressing millions of patients worldwide.

The CS-AKI and PONTiAK Phase II trials target up to 60% of all AKI cases in hospitalized patients.^{3,7} Successful completion could establish LSALT peptide and cilastatin as urgently needed treatments for global kidney care.

Arch's IL-32 CKD program highlights a novel pathway in diabetic kidney disease, with next steps focused on advancing drug development and building future partnerships.

Sources

Investor Information

Read the latest news releases and download financial reports and filings (also at SEDAR+).

www.archbiopartners.com/investor-hub

Capitalization

Dec 1, 2025

\$1.08 CAD TSXV - ARCH.V

\$0.75 USD OTCQB - ACHFF

52 Week:

High \$2.01 Low \$0.89 CAD

Common shares outstanding:

66,933,289 November 19, 2025

Market Capitalization:

\$72 M CAD

Options: 5,165,000

Exercisable Warrants: None

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November 5, 2025

Expands Phase II Cardiac Surgery-Associated AKI Trial to Include Royal Columbian Hospital in British Columbia...

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September 17, 2025

Acquisition of a Breakthrough Platform to Develop New Drugs Targeting (CKD)...

[Read online](#)

Executive Management

Richard Muruve

CEO, Director, Co-founder

Mr. Muruve co-founded the company with the Arch Inflammation team in 2010. Prior to his work at Arch, Mr. Muruve was a Vice President at Bank of Montreal where he spent 12 years in the Investment Banking Group.

Andrew Bishop

CFO, Director

Mr. Bishop is a Partner and Co-Founder of Bingley Capital Inc. and brings over 20 years of experience in advising biotech and health care companies.

Dr. Daniel Muruve MD

CSO, Co-Founder

A Professor in the Dept. of Medicine at the University of Calgary. Dr. Muruve has undertaken extensive post-graduate medical and scientific training at the University of Calgary, Harvard University and the University of Lausanne.

A committed board and advisors.

Claude Allary, Director

Co-founder, partner of Bionest Consulting,
Sanofi, Pfizer, Glaxo

Farris Smith, Strategic Advisor

President, Vimy Pharma, Former CFO, Leo
Pharma (North America), Novo Nordisk Canada.

Richard Rossman, Director

Gastroenterologist (retired), Asst. Professor at
McMaster University, Helix Biopharma (Board)

Patrick Vink, Strategic Advisor

Former COO, Cubist Pharma (purchased by
Merck for \$10B)

Dr. David Luke, Strategic Advisor

Previously at Pfizer Inc (20+ years), as Senior
Medical Director.

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About the company

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<https://x.com/archbiopartners>

LinkedIn

<https://bit.ly/ArchBiopartners-LinkedIn>

Bluesky

<https://bsky.app/profile/archbiopartners.com>

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