

# Micromem Announces Execution of Research Collaboration Agreement with the University of Toronto and the Department of National Defence for Biochemical Sensor Project

Toronto, Ontario and New York, New York--(Newsfile Corp. - March 3, 2025) - Micromem Technologies Inc. (CSE: MRM) (OTCQB: MMTIF) ("**Micromem**" or the "**Company**") is pleased to announce the Research Collaboration Agreement (the "Agreement") between the Company, University of Toronto (UofT) and Department of National Defence (DND) is finalized and executed. This follows our press release of February 10<sup>th</sup> where we announced the collaboration with the University of Toronto ("UofT"), the Natural Sciences and Engineering Council of Canada ("NSERC"), Defence Research and Development Canada ("DRDC") and Micromem, (collectively "Alliance").

The Agreement is for the project, "*Development of a Nanowire Field Effect Transistor Biochemical Sensor*" (the "Project") led by Professor Ruda of the UofT. The Project commenced approximately 2 years prior with promising developments achieved to date on cutting-edge technology for the military and industrial applications in the field of state-of-the-art biochemical sensors. One of the industrial applications now being reviewed is the technological use along the Canadian border to monitor and locate fentanyl and other illegal substances.

The proposal with the Alliance-DND program is aimed at the development of sensors for dual use – both civilian and military. The objective is to develop miniaturized (portable), low-cost, efficient, and selective sensors based on InAs nanowires that can be deployed on both aqueous and gas-based platforms for a wide variety of analytes. The Project is based on the recent success in demonstrating the use of such sensors to detect ethanol vapour down to the single molecule range. The partners in the Project are Defence Research and Development Canada (DRDC) Suffield Research Centre and Micromem. A sensor with the ability to distinguish multiple species can serve as a protection to the end-user when exposed to dangerous gases or hold use in biological cases where one wishes to identify specific molecules with unprecedented accuracy. This partnership has potential to satisfy applications in various industries such as environmental monitoring for industrial, agricultural, or home safety (e.g., NH<sub>2</sub>, CO<sub>2</sub>, or H<sub>2</sub>S monitoring); sensing of harmful contaminants or chemical warfare agents (CWAs) in national security and defense applications; detection of biomarkers or diseases as a biological in-solution sensor – with extreme usefulness in drug screening and DNA sequencing. Such sensors, having a wide range of applicability and practicality, such as analysis techniques related to distinguishing components in a sample analyte or methodologies to enhance sensor sensitivity, should prove useful for many Canadian industries. Moreover, the sensors benefits can also contribute to positive impacts on the environment, well-being of the end-users, as well as financial prosperity for the industries involved. Upon completion of this Project, Micromem will have the means to construct their own measurement systems for the portable uses, including civilian applications such as detection of volatile organic carbons (VOCs) – while DRDC will benefit heavily from in-field use and implementation of the manufactured devices.

## **About Micromem.**

Micromem Technologies Inc. and its subsidiaries, a publicly traded (OTCQB: MMTIF) (CSE: MRM), company analyzes specific industry sectors to create intelligent game-changing applications that address unmet market needs. By leveraging its expertise and experience with sophisticated sensor applications, the Company successfully powers the development and implementation of innovative solutions for oil & gas, utilities, automotive, healthcare, government, information technology, manufacturing and other industries. Visit [www.micromeminc.com](http://www.micromeminc.com).

## **Safe Harbor Statement**

This press release contains forward-looking statements. Such forward-looking statements are subject to a number of risks, assumptions and uncertainties that could cause the Company's actual results to differ materially from those projected in such forward-looking statements. In particular, factors that could cause actual results to differ materially from those in forward looking statements include: our inability to obtain additional financing on acceptable terms; risk that our products and services will not gain widespread market acceptance; continued consumer adoption of digital technology; inability to compete with others who provide comparable products; the failure of our technology; the infringement of our technology with proprietary rights of third parties; inability to respond to consumer and technological demands; inability to replace significant customers; seasonal nature of our business; and other risks detailed in our filings with the Securities and Exchange Commission. Forward-looking statements speak only as of the date made and are not guarantees of future performance. We undertake no obligation to publicly update or revise any forward-looking statements. When used in this document, the words "believe," "expect," "anticipate," "estimate," "project," "plan," "should," "intend," "may," "will," "would," "potential," and similar expressions may be used to identify forward-looking statements.

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