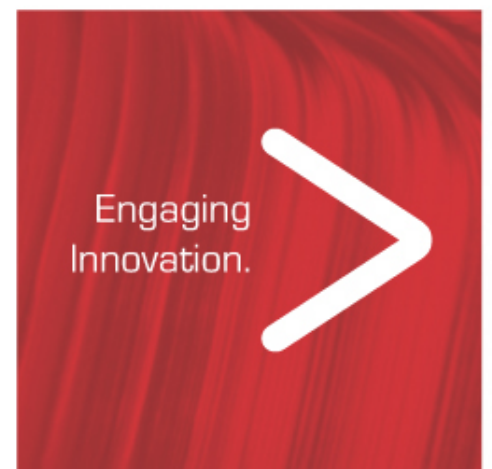


# Research Working Group Report: Contract Research in the Toronto Region, 2006



*Two broad global trends are changing how companies undertake research. The first is that research is less and less an in-house affair and more and more a question of collaboration with a range of external partners. The second is that research is becoming increasingly global as companies seek the best new ideas and discoveries to improve existing products and services and create new ones. In this context, the capacity to undertake successful R&D partnerships with public research institutions is becoming increasingly important to innovation-driven firms.*

*Public research institutions play a critical role in supporting private-sector innovation by supplying cutting-edge science, generating new ideas and knowledge and developing new talent. Leading publicly funded scientists operate within global scientific networks and continuously interact with peers and students from around the world. Through these links they offer an important channel for companies to access the best new ideas and technological developments globally, while exposing their own staff to innovative new ideas and approaches. By virtue of a suite of public programs targeting research and collaboration, companies can also access important R&D funding support through such relationships and by undertaking joint projects with researchers in public institutions.*

Breakthrough Partnerships: A Guide to Public-Private Research Collaborations in Ontario  
TRRA, October 2006

## Contract Research in the Toronto Region

In October 2006, TRRA began to investigate the matter of how best to grow public-private research collaborations in the Toronto Region. As a private-sector driven alliance of R&D leaders, TRRA's stakeholders understand the benefits that result from closer ties between industry and research institutions. TRRA led a panel session at the Ontario Economic Summit on this subject and, at the time, released *Breakthrough Partnerships*, a guide for companies that would like to pursue research partnerships with Ontario-based research institutions.

As part of this investigation, TRRA's Research Working Group initiated an electronic survey to better understand contract research currently underway in the Toronto Region. The ultimate goal of this research is to assist regional research institutions in their individual efforts to acquire a growing portfolio of research contracts and to determine if there are gaps or weaknesses in the regional research system that can be resolved through the collaborative efforts facilitated by TRRA among stakeholders in the Toronto Region. The key findings of that research are summarized below.

The two objectives of this first attempt to assess contract research in the Toronto Region were:

1. To develop a baseline of some aspects of contract research underway in the Toronto Region in a single year such as number, dollar amount, types of sources, location of private sector partners, and subject areas. (Note: Depending on how the institutions collect this data, the year may refer to a calendar year 2006 or a fiscal year 2005-2006.)
2. To identify some of the barriers to additional contract research.

An electronic questionnaire was developed by the Research Working Group and administered by TRRA's Director of Research and Analysis. Sixteen institutions participated including nine medical/health institutions and seven universities/colleges/institutes of technology (See Appendix 1).

## Key Findings – Baseline Statistics

### Number of Contracts

The survey revealed that approximately 3,328 contract projects are underway at regional research institutions. Of this total number, about 56 per cent are with universities/colleges/institutes of technology and the remainder is undertaken by with medical/health institutions. The average regional institution had 208 contracts underway in the most recent year for which data were available.



### **Dollar Amount**

The total value of contracts underway at regional research institutions is approximately \$442.4 million. Of this amount, 51 per cent or \$225.8 million reflects contracts with medical/health institutions and 49 per cent or \$216.6 million represents contracts with universities/colleges/institutes of technology. The average research institution's contracts are worth \$27.6 million.

### **Types of Sources**

Private sector companies account for 46 per cent of the contracts underway at regional research institutions. Thirty-five per cent of the contracts come from government sources – 21 per cent from the federal government, 12 per cent from provincial agencies and two percent from US government sources. (Note: Contracts from government sources refers to government-directed research, not funding from government programs to support research.) Non-profits account for 14 per cent of the total number of contracts. Respondents identified approximately four per cent from other sources such as other research institutions as well as multinational and foreign agencies.

There were some significant differences between medical/health institutions and universities/colleges/institutes of technology. Medical/health institutions received a much higher number of contracts from private sector companies and not for profits while universities/colleges/institutes of technology received a much higher number of contracts from federal and provincial government agencies.

### **Location of Private Sector Partners**

Of the private sector companies engaging in contracts with Toronto Region research institutions, 32 per cent are located in the Toronto Region, 21 per cent are located in Canada outside of Ontario, 21 per cent are based in the United States, eight per cent are foreign-based non US companies and six per cent are located in Ontario but outside of the Toronto Region.

### **Subject Areas**

Not surprisingly, 87 per cent of contracts at medical/health institutions were health sciences-related and the rest were in the area of life sciences. At universities/colleges/institutes of technology, 25 per cent were in engineering; 23 per cent were in life sciences; 15 per cent were in health sciences; 12 per cent were in the areas of earth, ocean, atmospheric and space sciences; 10 per cent were related to physical, mathematical and computer sciences; eight per cent were in social sciences; six per cent were business related; and, one per cent of contracts was in the humanities and the arts.

## **Key Findings – Barriers**

Respondents were asked to outline the major barriers they faced when working with larger private sector companies as well as to identify what they thought were the challenges that their customers might face working with them. In the first category, institutions identified concerns with timing (40 per cent of respondents), overhead/indirect costs (40 per cent), client process requirements (30 per cent), intellectual property issues (30 per cent), and lack of familiarity with the contractor's perspective (20 per cent). With regard to what institutions felt private sector companies were concerned about, 56 per cent said intellectual property issues, 44 per cent said timing, and 11 per cent said overhead/indirect costs.

## **Next Steps**

With these baseline findings, the Research Working Group plans to conduct and update this e-survey annually to understand the trends related to contract research in the region. They have already begun to discuss the barriers identified above and are initiating programs to research these in more detail and to develop action plans to resolve them.



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Dr. Katharine Janzen  
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Seneca College of Applied Arts  
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## APPENDIX 1

### Contract Research Respondents

Centre for Addiction and Mental Health

Hamilton Health Sciences

McMaster University

Mount Sinai Hospital

Ryerson University

Seneca College

St. Joseph's Healthcare Hamilton

St. Michael's Hospital

Sunnybrook Health Sciences Centre

The Hospital for Sick Children

University Health Network

University of Guelph

University of Toronto

University of Waterloo

Women's College Hospital

York University

