

# TOMORROW'S NEWS

UPDATE ON ALBERTA'S TOMORROW PROJECT  
ESTABLISHED IN 2000 TO LEARN MORE ABOUT CANCER AND CHRONIC DISEASE



VOLUME 12 | ISSUE 1 | SPRING 2023

## Letter from our Directors

Hello! We're so happy to have the opportunity to tell you about our activity over the last year, and to thank you for your continued involvement in Alberta's Tomorrow Project (ATP).

With your help, ATP remains the largest cohort health study in western Canada, enabling research into chronic disease and cancer within and beyond our province.

In this newsletter, you'll learn about our new Survey 2023; it's the sixth comprehensive questionnaire sent out to participants since 2001! Having health information from multiple time points offers rich information for researchers, as they track which aspects might lead to continued or declining health and wellbeing over many years.

In the stories ahead, you'll learn why more mental health questions are included in Survey 2023. There's a growing appreciation for how stress, mental wellbeing and resilience can influence health outcomes, especially in the wake of the global COVID-19 pandemic.

New questions have also been added to Survey 2023 about your work history, for researchers to examine how your occupation may affect your ongoing health. Evidence from studies using such data can shape government policies on

environmental exposures in homes and the workplace.

Speaking of surveys, ATP has been busy analyzing and integrating the results of the online COVID-19 survey. Data from this digital questionnaire is being linked with all other health and lifestyle information in the platform, making ATP one of the most robust and high quality datasets capturing early pandemic impacts to Albertans' lives. By sharing these results with our national colleagues in the Canadian Partnership for Tomorrow's Health (CanPath), ATP is contributing to a huge research platform that will enable disease surveillance for years to come.

In addition, ATP completed the COVID-19 Antibody Testing (CAT) sub-study, which involved more than 4,000 participants willing to provide repeat blood samples and information about the impact of COVID-19 on their lives and health. In cooperation with CanPath, 24,000 participants joined from across Canada to help create a rich picture of the health effects of the pandemic.

ATP is also working with provincial colleagues to support the creation of a brand new data environment — one of the first of its kind in the world — which will make it much easier to conduct significant health and disease research in Alberta. This new "Data Environment for Cancer



**DR. GRACE SHEN-TU AND  
SHANDRA HARMAN**  
(photo by Leah Hennel)

Inquiries and Decisions" (DECIDe) initiative will combine all cancer-related data into one streamlined source for researchers. You can learn more about DECIDe in the pages ahead.

Our Participant Advisory Committee (PAC) is as active as ever, with some members co-authoring a research paper on how ATP formed the committee, to ensure participants' perspectives are being heard and considered in the project's activities. You'll also meet a participant who explains why she's committed to staying with ATP.

We invite you to read more in this newsletter about the important work ATP is able to do, thanks to the participation and dedication of participants like you!

Best in health,

**DR. GRACE SHEN-TU**  
Acting Scientific Director, ATP

**SHANDRA HARMAN**  
Strategic Director, ATP

# Why where you live and work matters to ATP

In ATP surveys, participants are asked about many aspects of daily life, including what they regularly eat, how much they sleep, and how physically active they are. These are considered changeable, or 'modifiable', because we usually have some control over them.

But there are other considerations that can have a profound influence on our risk for diseases like diabetes, heart disease and cancer, over which we might have little or no power. Genetics, of course is one; we don't choose our ancestry, or the tendencies we may inherit. Exposure to pollution where we live and work, can be another.

As principal investigator of CARcinogen EXposure (CAREX) Canada, cancer prevention researcher Dr. Cheryl Peters knows which pollutants top the list.

"Our lungs are target organs for many cancer-causing agents," she explains. "We can breathe in radon gas, certain metal fumes, silica and asbestos, all of which increase our risk for lung cancer. Asbestos is also linked to some cancers beyond the lung, like ovarian and laryngeal cancers. Chemicals in diesel exhaust are associated with lung and bladder

cancers. This is why it is so important to track where and how Albertans may have been exposed over time."

To find out more about potential occupational and environmental exposures throughout participants' lifetimes, Survey 2023 builds on past questions about current job role, and if different, longest job. The new survey digs deeper, capturing conditions like working from home, changing schedules or shift work, or loss of employment.

For the first time, participants will be asked to provide their current and longest-serving job code, by searching their job title(s) in the National Occupation Classification [website](#).

"We're asking participants to take this extra step because it makes it so much easier and straightforward for researchers to compare exposures and disease outcomes," says Peters. "By standardizing the way job titles are entered into the survey, we can more accurately track which occupations may have a higher risk of cancer or other diseases – information that can be used to change policies that better protect the health of Canadians."

As examples, she cites legislation from 2018 in Canada to ban the import, sale and use of asbestos



DR. CHERYL PETERS  
(photo by Erin Brooke Burns)

and products containing asbestos, and vehicle emissions standards to reduce harmful exhaust from cars and trucks.

ATP is actively collaborating with [CanPath](#) to further increase the value of the home and workplace exposure information participants provide.

"The much bigger sample size of participants is so crucial for researchers," Peters notes. "Here in Alberta there may be only one or two cases of a rare cancer. By sharing similar data across the country, we have more information about how that cancer may have developed, or examples of regional differences that exist. Combined with the fact that many ATP participants have been filling out surveys for more than 20 years, we will really have a wealth of data to study." ■

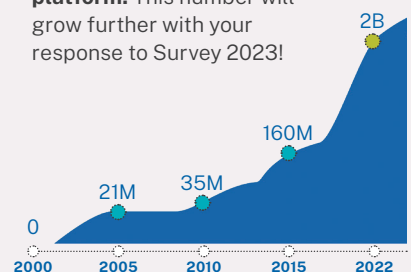
## WE'RE ROLLING OUT SURVEY 2023 AND WE NEED YOU!

This year marks another important chapter in ATP's history, with the rollout of Survey 2023. It's our sixth extensive survey since ATP was launched in 2000. Your continued participation is crucial to make sure ATP's massive database grows even more valuable for cancer and chronic disease research. Survey 2023 will also add important information about the ongoing and long-term health impacts of the COVID-19 pandemic.

In order to complete Survey 2023 participants require a unique email address on file. This will allow us to send a Survey 2023 invitation with instructions on how to access the online questionnaire. Going digital allows ATP to save valuable resources otherwise spent on printing and postage.

▶ Not sure we have your current email address?  
Update us by emailing [tomorrow@ahs.ca](mailto:tomorrow@ahs.ca).

Here's how our database has grown since 2000, with more than 2 billion data points already in our research platform. This number will grow further with your response to Survey 2023!



# Data and Discovery

**In 2020, more than 4,000 ATP participants joined a COVID-19 Antibody Testing (CAT) study. Here's what researchers are learning as a result.**

When Alberta Health first proposed a provincial study early in the pandemic to track COVID-19 exposure through blood tests, ATP responded swiftly and enthusiastically. Thanks to its well-established and dedicated cohort, within months more than 4,000 eager participants agreed to roll up their sleeves to give blood, and answer questions about their health and COVID-19 experience.

The COVID-19 Antibody Testing (CAT) study screened for antibodies in blood – which are developed in response to infection by the virus or vaccination against it – in addition to collecting comprehensive survey information from participants.



**DR. SARA NEJATNAMINI,  
ACTING RESEARCH LEAD, ATP**  
(photo by Leah Hennel)

Now that the study centres in Lethbridge, Calgary, Red Deer and Edmonton have closed, ATP researchers are analyzing the information and readying the data for external scientists to conduct investigations of their own.

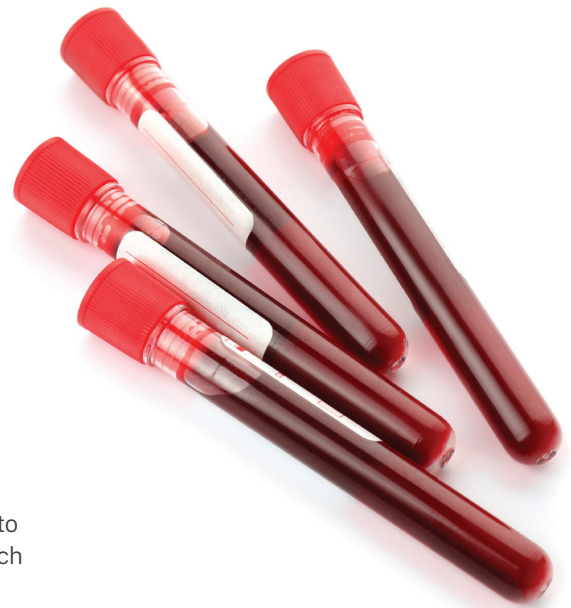
“We have been very busy getting the CAT study data recorded, verified and ready to use,” says acting ATP Research Lead Dr. Sara Nejatnamini.

She lists three studies already underway within ATP. One describes the methods employed to create the CAT sub-study, another looks at the impact of the pandemic on the mental health of respondents, and a third study is examining the differing decay rates of antibody levels in blood among the participants.

“We expect that antibodies formed in blood against the virus will decay faster, or slower, depending on the previous medical history of participants, and their age, for example,” notes Nejatnamini. “A faster decay rate could indicate declining immunity to COVID-19, meaning a person might be reinfected with the virus sooner. Such valuable information could help shape policies on when to administer vaccine boosters in the future.”

Since ATP has gathered extensive lifestyle and health information from its participants, this survey data can be analyzed along with blood collected at repeated intervals during the CAT study – and can also be compared with the severity and outcomes for those infected with COVID-19.

“This is such important information that can help better protect Albertans in the future,” Nejatnamini says. “Who was



most likely to get infected? Were men affected differently than women? Did income, degree of education, or access to health services make a difference? What about lifestyle, smoking habits, or physical activity, for example? These are the kinds of questions that can be answered thanks to the blood donated and questionnaires from the CAT study.”

One of the earliest trends ATP’s researchers are seeing from preliminary results concerns the actual infection rate due to COVID-19, versus the number of people who developed symptoms.

***“Our early results suggest that about 40% of infections were only detected through serology, or antibody test results — not through self-reporting of PCR or rapid antigen tests, or peoples’ symptoms. This highlights that actual infections far exceeded reported cases. It underscores why blood testing studies are so important, to capture the true infection rate of the virus.”***

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## Data and Discovery

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Epidemiologist and Ontario Health Study (OHS) scientific associate Dr. Victoria Kirsh is one of the external researchers who will be working with CAT study data from ATP. She is currently analyzing COVID-19 blood results from a number of ATP's sister studies within the [CanPath](#) research platform.

"It's very important that we investigate how the COVID-19 virus affected populations in different regions of the country," she says.

"For example, only about 2% of the population was infected before the Omicron variant emerged; those small numbers weren't large enough to reach meaningful conclusions about who was most vulnerable. By combining data from across Canada, we have a much larger study sample."

Kirsh emphasizes the value of participants filling out multiple surveys in the CAT studies.

"By comparing immunity status over time, we can offer evidence

about the risk of infection in certain occupations, like healthcare workers, or teachers. The information could influence recommendations about whether preventive measures were effective, and the timing of booster vaccines for example. It's all really important information."

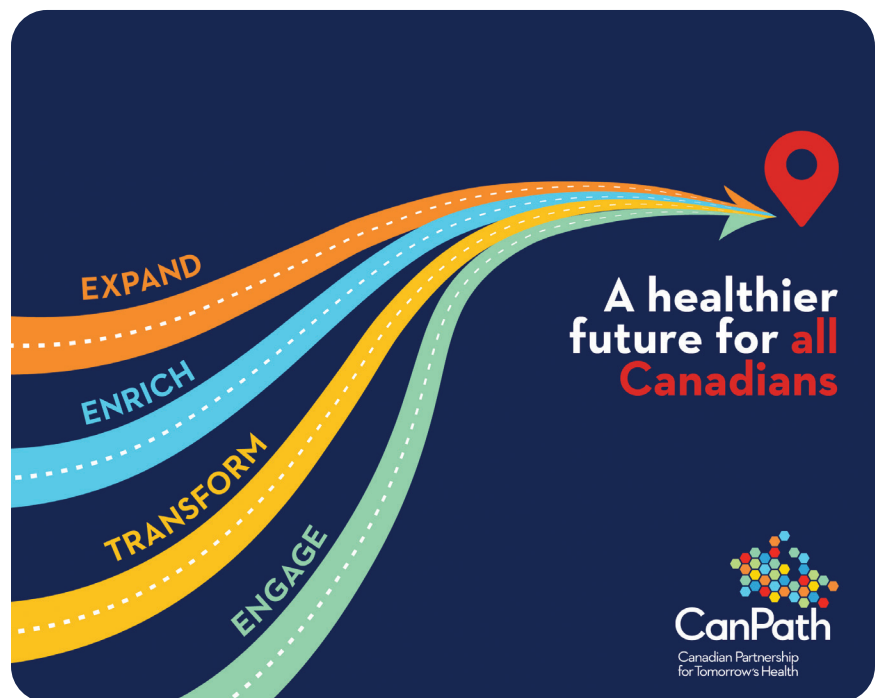
In collaboration with CanPath, ATP's CAT study will contribute to a large, longitudinal dataset supporting research into the early and longer-term impacts of the COVID-19 pandemic. ■

## Partnering for Stronger Research

The Canadian Partnership for Tomorrow's Health ([CanPath](#)) is excited to announce its 2023-2027 Strategic Plan. More than two-thirds of ATP participants are part of CanPath, Canada's largest population health study.

The work conducted at CanPath over the next four years will be guided by this plan, driven by four key objectives:

- Expand the cohort by engaging more participants from underrepresented populations and identifying partners in the territories
- Enrich the cohort by linking CanPath data with information from provincial data holders and registries and collecting more longitudinal data
- Transform the cohort by turning existing biological samples into data and improving researcher access to CanPath data
- Engage with key audiences, working more closely with our



participants, and promoting CanPath's platform nationally and internationally

ATP is proud of the progress our partnership with CanPath has made, and we look forward to working together over the next four years!

You can learn more about CanPath's strategic plan [here](#). More information about how ATP and CanPath's data has helped researchers investigate some of Canada's biggest health challenges since 2008 can be seen in this video: <https://tinyurl.com/3ketv3s6>. ■

# Exploring Links between Mental Health, Disease and Wellness

**Chronic disease researchers like Dr. Sheila McDonald have known for years that mental health challenges can have a profound impact on physical health. As co-principal investigator of the All Our Families (AOF) study and expert on population health, she and colleagues have been following the health and wellbeing of mothers and children for more than a decade.**

“In our surveys we ask many questions about overall health, child development, lifestyle, and community support,” she notes. “A real focus of our research is on mental wellbeing; looking at depression, stress, and anxiety across the lifespan. These challenges are well-known to be predictors of later disease, so it’s really important to capture as much information as we can for a more holistic view of what keeps a person healthy, from childhood and beyond.”

She welcomes the move by ATP to build on mental health information gathered in its past questionnaires. In the new Survey 2023, all participants will have a chance to give more information about anxiety, depression, stress, family

relationships, and whether or not mental health services have been sought for help and support, for example.

ATP’s acting scientific director Dr. Grace Shen-Tu says the closer look at mental health history among participants evolved partly as a result of the COVID-19 pandemic.

“There’s a growing awareness of the widespread mental health burden on Canadians,” she notes. “Since we have such rich information from our participants – in many cases over two decades – we will be able to support important research into the impact of the pandemic and other mental health stressors on physical wellbeing in years ahead.”

In fact, Survey 2023’s expanded mental health section will look familiar to participants who completed ATP’s COVID-19 survey in 2020, as many of the same confidential questions appeared on that questionnaire as well.

“Asking participants these questions multiple times – rather than just once or twice – helps us understand the relationship to diseases like cancer and cardiovascular disease and how they’re influenced by mental wellbeing,” Shen-Tu explains.

“Combined with health and lifestyle data gathered from our participants over many years, we have a much more complete picture of the risk factors and impacts of different diseases.”

McDonald agrees, emphasizing that long-term studies like hers aim to evaluate aspects of emotional resilience and wellbeing as well. These include social support, coping skills, and strong personal relationships.

“We see the potential for intervening early in pretty simple ways,” she says. “By offering support to parents for example, we can improve the chances that their children will be able to handle adversities later, and stay healthy longer.”

“If we learn which factors cause illness, or promote wellness, we can design programs or policies to identify people early in the risk cycle, and intervene to reduce their chances of poor outcomes,” adds Dr. Suzanne Tough. Principal investigator of AOF, professor in the University of Calgary’s Cumming School of Medicine and longtime scientific advisor to ATP, she helped standardize the mental health questions in Survey 2023.

“In the AOF study, we look at all aspects of life in the formative years; ATP looks at health and wellbeing in later life. When we share this crucial data using questions that are very similar, we can investigate across different life stages. That broader perspective and much bigger sample size are extremely valuable.”

By collaborating with innovative research partners, there is incredible potential for ATP to support exploration into the relationship between mental health, disease and wellness now and into the future. ■



**DR. SHEILA MCDONALD**  
(photo by Leah Hennel)



**DR. SUZANNE TOUGH**





**CHRISSIE MORTON AND GRANDCHILDREN BROOKLYN AND ZACHERY**  
(photo by Nichole Harrison)

## She's been a welder and a camp cook, but now this ATP participant is a fierce advocate for a healthy lifestyle

**“When it comes to investigating healthy living, I’m like Inspector Clouseau,” jokes ATP participant Chrissie Morton. Referring to the Pink Panther film series’ iconic detective, she says she’s always on the lookout for new information about how to stay healthy.**

But it wasn’t always like that. Morton says she used to be overweight and was diagnosed with high blood pressure. In 2018, she researched and adopted a plant-based diet. Now 67 years old, she no longer needs hypertension medication and is looking forward to an active retirement.

“My family had a lot of health issues,” the Innisfail, Alberta native explains. “My dad had heart disease which led to a quadruple bypass, and later died of colorectal cancer. My sister had cervical cancer; she and my grandmother both had breast cancer, and my grandfather died of a cardiac arrest. Lord knows, our family has had it all! But a while ago, I made up my mind to change my own health history if I could.”

Morton says her growing desire to avoid chronic disease and cancer prompted her to join ATP in 2007. Since then, she’s enthusiastically completed each survey, answering questions about every aspect of health from her eating and exercise habits, to work life, and mental resilience.

“It’s so important that we fill out every questionnaire honestly and completely,” she says. “ATP needs to have all of the relevant information, to weigh out which things matter and which don’t. It’s part of their research, and needs to be correct.”

It’s that spirit of contributing that will keep Morton filling out future ATP surveys and stepping up to join sub-studies if asked, as she did with the COVID-19 Antibody Testing (CAT) study in 2020. “I might not be able to save myself in my own lifetime, or have the knowledge to do it all myself. But I have a daughter, son-in-law and two grandchildren so I think of generations to come who will benefit. I can be part of this bigger, important movement to help them.” ■

# From Surveys to Strength

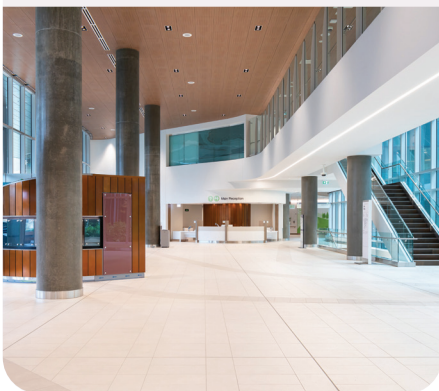
## THE NEW CALGARY CANCER CENTRE: SOON TO BE A HUB FOR CANCER CARE AND RESEARCH

Work continues on the new Calgary Cancer Centre, which is set to open in 2024.

The extensive scope and integration of cancer care diagnostic and treatment services — along with research conducted from prevention to survivorship — will make it one of the most comprehensive cancer centres in the world.

It will also be home to ATP, providing a hub for staff, researchers and possible future study sites for our participants to partake in individual research projects.

We look forward to moving into this beautiful space! ■



### ATP's role in a groundbreaking new health data environment

What makes the health details that you provide to ATP an even more powerful tool for health research? Linking that information with provincial databases. A new, comprehensive and coordinated data environment — one of the first of its kind in the world — is being carefully created in Alberta to make health research much easier to conduct.

When you visit a hospital or emergency room, or get a diagnosis for a condition or disease, your use of the healthcare system is recorded by secure provincial health data platforms. Together with the extensive de-identified information provided by participants in multiple surveys, the combined data will be available to scientists studying cancer and chronic diseases. By analyzing participant lifestyle and health system usage patterns, researchers will be able to see how habits like diet, exercise and sleep correspond with the onset of conditions like cardiovascular disease, diabetes and cancer.

Building the new streamlined environment is a mammoth task for data analysts and senior scientists within Cancer Research & Analytics (CR&A) at Alberta Health Services (AHS). The groundbreaking project is called Data Environment for Cancer Inquiries and Decisions (DECIDe), and is being constructed in phases.

De-identified ATP data will be added to clinical information already

compiled by the Alberta Cancer Registry, the new provincial Connect Care electronic medical record system, and other platforms. Access by scientists to such powerful linked data will require a detailed research proposal outlining the project and purpose for access. The application will then undergo rigorous scientific review, and will only be released for appropriate use if researchers ensure the data will follow strict guidelines on security and ethics.

By creating a single point of access for diverse health information, researchers, data scientists and system analysts will get the data they need in weeks, rather than months — while ATP participant survey details remain private and secure.

Amanda Davison is the executive director of CR&A and former strategic director of ATP. She's spearheading the DECIDe project, and says the overall goal is to create a more responsive research environment where clinical questions can be asked and answered as quickly as possible.

"This data is precious and such a valuable resource for health research," she says. "But spending months requesting data from multiple sources slows down the ability of scientists to investigate important research questions in a timely way. ATP offers exceptional insight into what may cause or worsen a chronic disease over time, and DECIDe will provide the most effective and efficient data source in the world to make use of it." ■



# Have you moved, changed your phone number or email address?

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Please let us know your new contact information —  
we want to stay in touch!

## HERE'S HOW TO UPDATE YOUR SECURE FILE

### Contact the ATP call centre:

Call the toll-free line 1.877.919.9292 or send us an  
email at [tomorrow@ahs.ca](mailto:tomorrow@ahs.ca)

## CONTACT US

**Email:** [tomorrow@ahs.ca](mailto:tomorrow@ahs.ca)

**Toll free telephone:** 1 877.919.9292

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For more information visit: [myATP.ca](http://myATP.ca)

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## IN PARTNERSHIP WITH



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