

# ANNUAL REPORT 2021

Cultivating Science and Research in Canada and Pakistan

www.cprdc.ca

WITH ADDITIONAL HIGHLIGHTS OF EARLY

2022

AND NEW ANNOUNCEMENTS



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**(647) 990 3132** 

## ANNUAL REPORT 2021

For year ending 31 December 2021

Five popular and bright Scientists from Canada and Pakistan contributed in our first fully virtual Webinar.

**EDITORS** Ann'ah Askari

Atchaya

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MESSAGE FROM THE **PRESIDENT** Perin' CPRDC:A CPRDC CPRDC VISION FOR WHAT WE **EVENTS** SCIENCE & LEARN & HOW 2021 RESEARCH WE ADOPTED 12 TURKEY IRAN AFGHANIS Cairo O ORDAN IRAC CPRDC FOCUS CPRDC: **BOARD &** IMPACT SAUDI **GROUPS 2021** MEMBER Medina Ar-Riyad TEAM ARABIA OMAN ARABIAN Mumbal SEA ERITREA Sana AFFILIATIONS MALDIVES

## Message from The President



Dr. M Akhter Hamid MD, DCH, MRCPI, FRCP, FRCPCH President of CPRDC

The Canada Pakistan Research and Development Council (CPRDC) had a successful year in facilitating research and science innovation in both Canada and Pakistan. The council will continue to provide benefit to current and future scientists by creating opportunities for growth in the fields of medicine, engineering, and technology. Dedication from our members has allowed us to move closer to our goal of achieving the Sustainable Development Goals (SDGs) and ensuring inclusive and equitable quality education through the promotion of lifelong learning opportunities for all.

It is an honor to work with individuals who are so dedicated to our cause. I would like to extend my gratitude to the members of the Canada Pakistan Research & Development Council for their excellent work and strong effort for the organization. Your belief in the organization will guide us in becoming a leader in science for both Canada and Pakistan.

Sincerely,
Dr. Muhammad Akhter Hamid (President)

**Cultivating Science and Research in Canada and Pakistan.** 

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### Who are we & where we operate?

Canada Pakistan Research & Development Council (CPRDC) is a non-government and non-profit organization dedicated to facilitating the health research activities involving scientist & students from Canada & Pakistan. The health research will lead to significant discoveries, the development of new therapies and a remarkable improvement in Healthcare and Public Health. Advances in health information technology are enabling a transformation in health research that could facilitate studies that were not feasible in the past and thus leads to new insights regarding health and disease as medical research can have an enormous impact on human health and longevity.

CPRDC is mainly establish for increasing the exchange of knowledge by means of Internships and Seminars that not only confine to Physicians, Physician Scientists or Health programmer Scientists but equally to all relevant professionals like Microbiologist, Biologists, Molecular Biologists, Bio-technologists, Environmental Health Scientists, Industrial Hygienists, Clinical Health Care Professionals, Veterinarians, Chemists, Engineers and Laboratory Designers.

## Canada Pakistan Research & Development Council

## A VISION FOR Science & Research

## Mission Statement

Our mission is to offer a robust platform to Canadian and Pakistani individuals and institutions, for collaboration primarily in the areas of research and development leading to sustainable development. CPRDC has been actively working towards their goals over the last year, addressing sustainable development goals (SDGs) 2 to 6, 8, 9, 11, 13 and 17

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pexels.com

by Artum Podrez



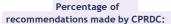
Canada Pakistan Research and Development Council members are people who, whether individually or in association with others, promote Science, Technology, Research and Development. They are people who act with expertise, contribute in education and bring out the best in Canadian and Pakistani Institutes.

During 2021, Canada Pakistan Research and Development Council developed a new two years Strategic Framework setting out the ways in which we will support and act in unity with Canadian and Pakistani institutes and, in so doing, contribute to Research and Development that is sustainable and workable, in which all institutes enjoy scientific strategies, in departments that are diverse and inclusive.

Our new strategy was developed in a context characterized by uncertainty and change. This includes a global pandemic and associated financial crisis, worsening authoritarianism and the erosion of multilateralism.

It is also a context, however, characterized by increased Research and Development awareness and action at the local, national, regional and international levels. Canada Pakistan Research and Development Council team are mobilizing around issues such as scholarship scarcity, less funding opportunities for research and development, visa issues, and access to information for admissions in Canadian and Pakistani Universities/Institutes.

On many of these issues, we are at an inflection point; a point at which the work of Professionals is perhaps more imperiled but more important than ever.

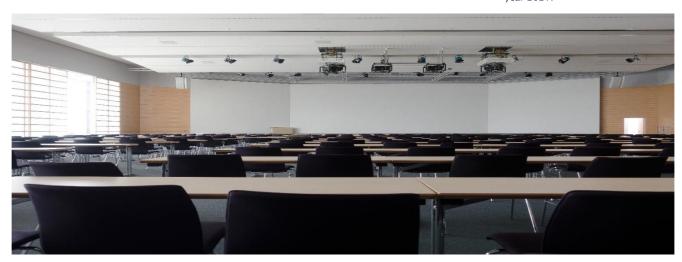




76% recommendations have been recommended by the five renowned Scientists in our fully online Webinar.



Around 86% of these recommendations have been adopted and witnessed by many institutes globally at the end of the year 2021.



## Research & Development: values and risks

Young scientists from the field of Science and Technology, whose knowledge is vital to contribute in research more responsibly and sustainably, are displaced for their work to prevent important science and technology discoveries in Pakistan.

Students mobilizing online and offline for learning and attaining knowledge in science and technology are harassed and criminalized under fake and forged web sources.

Fresh graduate taking to the membership to demand research access are met with disproportionate force from impractical prerequisite or requirement.

Women in field of science are detained and in retaliation for their work to challenge patriarchy and demand an end to discrimination and violence.

The freedom, safety and work of these and many other researchers/students/doctors/scientists is vital to build a better future.

For all of these professions and students, international and regional research ethics/laws and mechanisms have the potential to protect and amplify their work and impact on the outcomes.

## Our theory of Research



Our theory of research is founded on the fact that the work of researchers is crucial for discoveries, protection and new treatments for all people. Based on extensive consultation, research and evidence, we theorize that:

#### lf

Researchers can work safely and contribute national, regional and international levels from Pakistan and Canada.

#### And if

Researchers have the capacity, connections and support to organize and engage with international and regional mechanisms through online webinars,

#### And if

These tools are reachable and approachable to researchers, and effective in promoting health sciences, robotics and emerging technologies and FinTech.

#### Then,

Researchers will be able to work more efficiently, collaboratively and persuasively at the national and international levels to ensure that all people and institution take advantage of these researches.



## Our goals for change



Following this pathway, over the coming years we will work to ensure that:

### Scientist and doctors are equipped, connected, supported and influential.

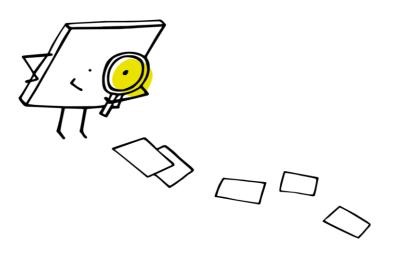
We will provide scientists/doctors/students with tools, trainings and networks to be more active and influential in contributing in Research and Development.

#### Facilitate knowledge exchange.

We will facilitate knowledge exchange activities between scientists and students from Canada and Pakistan, but not limited to, training, seminars, symposiums, and internships.

#### Support development.

To support development and maintenance of research infrastructure promoting health research issues faced by Canadians and Pakistanis, including, creation of chairs as well as specific research teams.



## A values driven Objectives



The challenges of 2021 reinforced the importance of a commitment to values, providing clarity in 2022.

To promote joint research activities by Canadian and Pakistan Scientists.

To support specific health research projects to be conducted by scientists and students from Pakistan and Canada.

To raise funds for research projects, exchanges, and research infrastructure.

#### Discover more

We are strengthened by our new strategy, inspired by the focus group leads and members we serve, and committed to working with. To learn more and to support this vision, see <a href="https://www.cprdc.ca">www.cprdc.ca</a>



The COVID-19 pandemic profoundly affected Canada Pakistan Research and Development Council. It exposed and deepened scarcity of physical learning activities. There have been increased delay in on-going research projects, including scholarship project, FinTech, robotics and emerging technologies.

Beyond this, the unpredicted pandemic due to ever-evolving COVID19 variants also significantly disrupted the operation of Canada Pakistan Research and Development Council mechanisms and other NGOs. This necessitated large-scale adaptation and innovation in our work through online webinars and limited physical events with strict SOPs.

#### What we learned

The pandemic presented - and continues to present - huge challenges and opportunities for Science, Technology, Research and development. As an organization committed to reflection, evaluation and learning, Canada Pakistan Research & Development Council realized how 2021 emphasized and risk management:

#### **RISK MANAGEMENT**

CPRDC views risk management as an integral part of planning, management, decision-making and learning. We consider ourselves to be risk aware, but not risk averse. We identify and manage risks that may prevent us from achieving our objectives by ensuring that there are effective and adequate risk management and internal control systems in place to address key risks to which the organization may be exposed. The Board of Directors discharge this responsibility through board meetings and reviews of the effectiveness of CPRDC risk management framework, designed to support informed decision-making. The systems of internal control are intended to appropriately manage rather than eliminate risks. They give reasonable rather than absolute assurance and provide for a consistent approach to identifying, assessing and dealing with key risks. This provides reasonable, but not absolute, assurance against material misstatement or loss.

Risk areas are reviewed monthly and each risk is assigned to an accountable member of the team who ensures appropriate monitoring and risk response. Next to each risk we highlight mitigation actions. Management and control strategies have included ensuring that the new policies developed at the time of independence are refreshed and duly implemented, staff are trained, and compliance is monitored. The newly formed Strategy Group will regularly review the effectiveness of the management strategies and adjust residual risk if necessary.

#### COVID-19

The scale of the impact of COVID-19 is unchartered territory on multiple levels – from donors, to beneficiaries, to staff; in multiple ways. We are monitoring the current situation and working in real time to manage the financial health and stability of the organization, taking a conservative approach to our budget.

Given present uncertainties, we have shifted from forecasting results to application of scenarios, the Board of Directors are aware of a growing risk from the changing external environment and monitor unrestricted reserves balance at each board meeting, such as, status of research projects, and associated projects (Webinars, meetings, etc) remain sufficient to operate on a sustainable basis for the foreseeable growth of CPRDC.



The coronavirus pandemic required significant adaptation of the ways we worked and how we developed Science, Technology and Research throughout these years. These adaptations were underpinned by a commitment to core values that provided clarity and direction in a continually changing environment.

Even while vaccination and physical distancing measures were implemented across the world and mask use became widespread, the unforeseen circumstances can occur again due to new variants which may require COVID-19 pandemic.

At CPRDC this situation means solidarity with colleagues, such as through check-ins, sharing workloads, and providing compassion and support. It also means solidarity with CPRDC members, with CPRDC programme staff regularly reaching out to national and international-level partners to discuss their wellbeing, situation, priorities and needs. In addition to showing solidarity, at CPRDC we greatly appreciate receiving solidarity and the enhanced cooperation, coordination and information sharing from many people.

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Photograph adapted from *pexels.com* 

Erik Mclean

## Canada Pakistan Research & Development Council Events 2021

Fully online Webinar on The Landscape of Science and Technology: Past, Present and The Way

**Forward** 



By Anna Askari

#### Creativity during the Pandemic: fully online Webinar on The Landscape of Science and Technology 2021

This crisis has highlighted the importance of creativity, of being dynamic and flexible, and planning for uncertainty. From the outset, CPRDC was determined to use the crisis as an opportunity to innovate and to test new ways of working.

In 2020, we launched the CPRDC new online activities program where we conducted online meetings. The program is an interactive, online platform to build the capacity and skills of Research and Development.

In 2021, with a significantly increased demand for online activities on Science and Technology, we rapidly developed one free interactive session with PM's Chairman of National Task Force on Science & Technology on Saturday 19th June 2021 at 8:00 pm Pakistan time and 11:00 am Canada time. The webinar included: keynote speaker Dr. Atta-ur-Rehman (FRS, N.I., H.I.) - along with the panelists: Dr. Naweed Syed (FRCP Edin), Dr. Amir Asif (PhD), Dr. Umar Shahbaz Khan (PhD), Dr. Rashid Ahmed (PhD). The webinar was hosted by Dr. Muhammad Akhter Hamid (MD, DCH, MRCPI, FRCP, FRCPCH).



FROM TOP: Dr. Atta ur Rehman, Dr. Naweed Syed, Dr. Akhter Hamid appearing in conference in Canada and Pakistan.



CPRDC Webinar on the Landscape of Science and technology: Past, Present & the way forward was held fully online in 2021.





Prof. Atta-ur-Rahman, FRS, N.I., H.I., S.I., T.I.

UNESCO Science Laureate Chairman PM's National Task Force on Science and Technology Academician Chinese Academy of Sciences Academician Unitese Academy of Sciences Professor Emeritus International Centre for Chemical and Biological Scier University of Karachi

an (NI), Pakistan's prominent scientist, Chairman of Prime Minister's Task Force echnology, Vice Chairman of Prime Minister's Task Force on Technology-Driven omy, Co-Chair Task Force on Information Technology and former Chairman of

esources have diminishing importance source is a key for development today and future

Impact of disruptive technology, Automation of knowledge work, cloud, autono energy storage, advanced materials, Renewable energy, advanced robotics and intelligence, next generation genomics, and 3d printing

Quantum computing, Management of big data, revolution in understanding complex biological process, genomics, proteomics, and metabolomics











REGISTRATION LINK

https://bit.ly/3x3UmRz



Saturday June 19th, 2021 Time Karachi, Pakistan 08: 00 PM ronto, Canada 11:00 AM



#### Cultivating Science and Research in Canada and Pakistan

Registration Link https://bit.ly/3x3UmRz







#### Success report of online registration

The people who registered for The Webinar of The Landscape of Science and Technology: Past, Present & the Way Froward were mostly from the United Kingdom, the United States of American and the Canada - 30% were Physicians, 20% Residents, 30% Engineers, 15% Students and 5% PhD Scholars. However, the percentage from other countries also registered for the Webinar (percentages shown below - country wise).

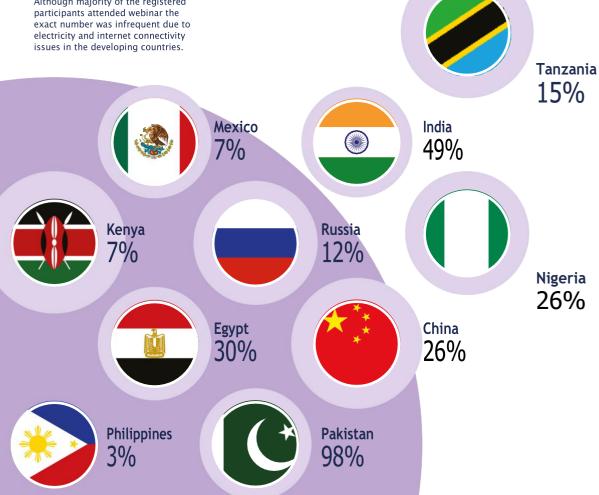
#### to watch the Webinar please visit:

https://www.facebook.com/watch/?v=56769401773302 7&extid=NS-UNK-UNK-UNK-AN\_GK0T-GK1C&ref=sharing

The % only shows the participants enrolled for the webinar and not the % that attended the Webinar.

Although majority of the registered participants attended webinar the electricity and internet connectivity







Throughout 2021 we supported our members, reinforced systems for their productivity, and contributed to a safe and enabling environment for them at the national, and international levels.

## Supporting Researchers

OUR MISSSION:

Our MISSION is to facilitate research through an exceptional, efficient, and formal affiliation between Canadian and Pakistani institutions.

OUR VISSION:

Our VISION is to act as a catalyst in research endeavors through Canada and Pakistan science and technology collaboration.

CPRDC provided the members and students across Canada and Pakistan with knowledge, networks and resources to amplify their power.

Global travel restrictions necessitated significant adaptation of all our researches, for example HALO trials that we proposed in 2018. Canada Pakistan Research and Development Council, which normally contributes greatly in in-field researches to collect data, was instead conducted fully virtually, providing training, strategic advice and advocacy support to the students of Pakistan and Canada.



With over 70% students said they were 'very satisfied' learning about plenty of opportunities in Canada and Pakistan in the field of Science, Technology, Research and Development.

Canada Pakistan Research & Development Council is also planning to work in restrictive contexts, the members would teach a highly interactive distance learning courses, one-on-one coaching and advocacy support, and meet with a range of Students from Canada and Pakistan to guide them build a better future in these countries.





860

Facebook likes and 191 followers



133

Instagram account request from people



194,74

www.cprdc.c a visits



12

Total videos produced



66

Youtube channel requests



4



Chinese





French



Spanish



English



#### Prof. Dr. Naweed Syed

Naweed I. Syed is a Pakistani-born Canadian neuro-scientist. He is the first scientist to connect brain cells to a silicon chip, creating the world's first neurochip. In 2021 and 2022 he was honored by Hunar Foundation Karachi, Fatimah Jinnah Medical University, Govt. College University Lahore, REIMAGE Pakistan and many other organizations in Pakistan. He also contributed by giving series of talks and workshops, such as Future of Health Research and Care, Changing the Odds, from brain-computer interfacing to super AI, Science, modernity and Pakistan's quest for world class Universities and STEM 2021.



## We ensured our Board & Members had a seat and a powerful voice globally

Canada Pakistan Research and Development Council is deeply committed to putting Scientists at the heart of the international Research and Development system – ensuring that they have a seat and their own voice at key policy and decision–making tables.

#### In 2021:

- We were proud to collaborate with more Pakistani Universities and join hands with the top-notch scientists like Prof. Atta-ur-Rahman and Dr. Naweed I. Syed. Prof. Atta-ur-Rahman is PhD, Sc.D, NI, FRS, FPAS is a Pakistani organic chemist is currently serving as Chairman of PM Task Force on Science and Technology. He is also heading the Task Force established by the Ministry of Science and Technology on coronavirus that has carried out a number of tasks including clinical trials on different medications, manufacture of ventilators, expansion of covid testing facilities, monitoring the genetic variations regularly that are occurring in coronavirus as it mutates and clinical trials on herbal drugs against coronavirus.
- Other than Dr. Naweed I. Syed and Prof. Atta-ur-Rehman, Canada Pakistan Research and Development Council have plenty of other renowned Scientists and Physicians to promote Science, Technology, Research and Development in Canada and Pakistan. These Canada Pakistan research and development council members can be found on our official website www.cprdc.ca.
- As new names have been added in our members list in 2021;
   we are grateful to have them and looking forward to cultivate
   Science and Research between Canada and Pakistan.





## Canada Pakistan Research & Development Council: FOCUS GROUPS 2021



#### Life & Natural Sciences

Canada Pakistan Research & Development council is a common platform of Pakistani Professionals exploring and creating value in Life Sciences in North America. CPRDC Life and Natural Sciences group covers a wide range of activities under this umbrella like Pharmaceutical, Biological, In Vitro Diagnostics, Medical Devices, Nutraceuticals and Clinical Research. Life and Natural Sciences also covers the sphere of Health and the nutrition part of SDGs. Our life and natural sciences projects include:

- Pharmaceutical
- Biological
- Nutraceutical
- Medical Devices
- Capacity Building

#### **Health Sciences**

The division of Health Science offers an effective and efficient means to enable collaborative research between Pakistani and Canadian institutes and be a central point of contact for all research-related activities.

## Innovation & Emerging Technologies

The CPRDC focus group of innovation and emerging technologies involve Information technology (IT) that refers to advanced computing, communications, and information technologies that cover scientific workstations, supercomputer capacity, systems, high high-speed special purpose networks, and experimental systems (application), and systems software.

also covers health information technology which is an essential resource for health care professionals, policymakers and product developers to obtain computer-based patient records, telemedicine, community health information, and much more. Along with IT, cyber-security also plays a role in sustaining the emerging technology. Thus, we have included cyber-security within this focus group. This will allow our members to defend computers, servers, mobile devices, electronic systems, networks, and data from mischievous attacks. Our unique platform for innovation and emerging technologies is run by experts from Canada to recognize academic needs to benefit professionals and students of IT and cyber-security.

## What is FinTech focus group and how it works?

As technology continues to disrupt banking and financial services globally, Fintech is reshaping how such services are being consumed by customers. Over the past several years Fintech's have challenged traditional banks and

other financial institutions by offering better and more timely services, something which is in line with market demands. This has allowed deeper penetration into the market, thus enabling governments and policy makers to leverage such platforms for promoting financial inclusion and sustained economic growth.

We have also seen that while disruption has its benefits in terms of opportunities, there are also several risks that we need to be cognizant of. As such, regulators are constantly designing new regulatory frameworks to keep pace with the rapidly changing environment and to ensure better governance while not stifling innovation. Like other countries, we have seen the growth of Fintechs in both Pakistan and Canada, given the opportunities available. However, In Pakistan, for various reasons, the ecosystem has not allowed Fintechs to achieve its full potential and tap potential market opportunities. This is not to say that the GOP is not keen to leverage financial technology; as a matter of fact, it is a cornerstone of the Government's financial inclusion strategy. While in Canada, the government has provided incentives to facilitate Fintech development, scaling is an issue given the market size.

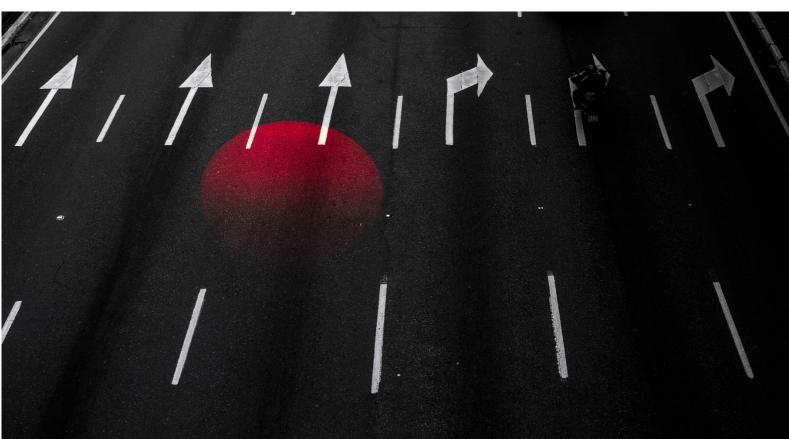
The number of people to looking up for information regarding Life and Natural Sciences, Health Sciences, Innovation and Emerging Technologies and FinTech doubled in year 2021 after our successful "fully Online Webinar" and constant updating on social media and on our website.

We highlighted all possible opportunities for students on social media and shared massive research work (Clinical trials, Cross-sectional studies, Systematic reviews and metanalysis) of our members as well as other popular topics and useful scientific news on our website.

#### Number of people

accessing information and support through the Canada Pakistan Research and Development Council.





#### **Board Team**



Dr. Anwar Nasim Patron of Chief Canada



Dr. Shahid Hussain Treasurer



Dr. M. Akhter Hamid President of CPRDC



Prof. Shamim Sheikh General Secretary



Prof. Naweed I. Syed



Dr. Bilal Siddiqui



Dr. Rabia Shahab



Mr. Farooq Naiyar

Prof. Atta-ur-Rehman
Patron of Cheif
Pakistan



Prof. Iqbal Choudhary



Mr. Abdul hameeed Consul General Pakistan, Toronto



Mr.Imran Siqqiqui High Commisioner



Prof. Rashid Ahmed



Mr. Shahab Khokhar



Dr. Uzair Ul Ghani



## Oursupporter

#### Thank you

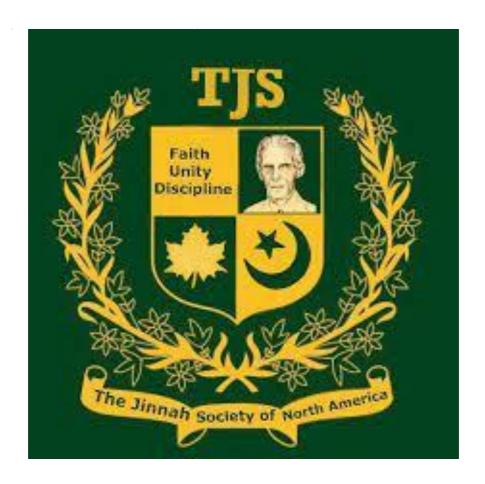
The generous contributions of our partner organization Jinnah Society of North America sustain our work to support Research and Development.

Our partner organization provide hope and make change happen!

As a registered non-profit association in Canada. Please support CPRDC and help us Cultivate Research and Development in Canada and Pakistan

#### Jinnah Society of North America

The Jinnah Society of North America Inc. is the advocacy organization for the Pakistani community in the North America. Our mission is to enhance the coordination and communication among Pakistani community with other minority while groups, their inspiring excellence respective areas of profession. The is to unify Pakistani vision community on the platform of Jinnah and vision mentoring generation to help them to promote diversity and multiculturalism in North American Society.



## Become a CPRDC Supporter in 2022

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#### ANNUAL REPORT 2021

For year ending 31 December 2020

For more information about our work, or any issues covered in this publication, please visit our website: www.cprdc.ca

Or contact us: info@cprdc.ca

#### Follow us:

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### **Affiliations and Partners**



The University of Toronto (U of T or UToronto) is a public research university in Toronto, Ontario, Canada, located on the grounds that surround Queen's Park. It was founded by royal charter in 1827 as King's College



The University of Manitoba (U of M, UManitoba, or UM) is a non-denominational, public research university in the province of Manitoba, Canada. Founded in 1877, it is the first university of western Canada.



The National University of Sciences & Technology (NUST) (Urdu: قومی جامعہ برائے سائنس و ٹیکنالوجی, romanized: Qaumī Jāmi'ā barā'e Sāins va Ṭaiknālōjī) is a public research university under administration of Pakistan Armed Forces with its main campus in Islamabad, Pakistan.



Brock University is a public research university in St. Catharines, Ontario, Canada. It is the only university in Canada in a UNESCO Biosphere Reserve, at the centre of Canada's Niagara Peninsula on the Niagara Escarpment.



The University of Waterloo (commonly referred to as Waterloo, UW, or UWaterloo) is a public research university with a main campus in Waterloo, Ontario, Canada. The main campus is on 404 hectares (998 acres) of land adjacent to "Uptown" Waterloo



The Dow University of Health Sciences (DUHS) is a public medical university located in the urban metropolitan area of Karachi, Sindh, Pakistan. It was founded by Sir Hugh Dow, the then Governor of Sindh, in 1945.



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The Indus Hospital and Health Network formerly Indus Hospitals is a tertiary care multidisciplinary hospital and healthcare system in Pakistan. Construction began in 2004 and it opened in July 2007. It is located in Korangi.



Tabba Heart Institute is a specialty Cardiac Care Hospital established in the year 2005 with a vision to provide quality services and compassionate care at an affordable price.



Saaz-O-Awaz is the medium that allows us to bridge gaps between people, communities, interests, information and resources. It enables the voice of the community to spread far and wide.



Alam Law Office has a genuine concern for all clients. The team of lawyers and staff is dedicated to provide personal and ongoing attention in all stages of the legal case. Clients receive regular updates and has access to senior lawyers, who put client's needs first.