Swami Rama Himalayan University
स्वामी राम हिमालयन विश्वविद्यालय

CAML
Centro Académico de Medicina de Lisboa
CENTRO HOSPITALAR UNIVERSITÁRIO LISBOA NORTE, EPE
HOSPITAL DE SANTAMARIA
Hospital PulidoValente

TATA MEMORIAL CENTRE
ADVANCED CENTRE FOR TREATMENT RESEARCH & EDUCATION IN CANCER

KYOTO UNIVERSITY FOUNDED 1897 KYOTO JAPAN

Rajiv Gandhi Cancer Institute and Research Centre

MEMORANDUM OF UNDERSTANDING (MoU)

between

Cancer Research Institute (CRI)
Swami Rama Himalayan University (SRHU), Dehradun, India
and

Lisbon Academic Medical Centre -
North Lisbon University Hospital Centre, Lisbon, Portugal
and

Graduate School of Medicine and
Faculty of Medicine Kyoto University, Kyoto, Japan
and

Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Centre, Mumbai, India
and

Rajiv Gandhi Cancer Institute and Research Centre (RGCIRC), New Delhi, India

for establishing a

Global Consortium for Breast Cancer in Young Women (GCBCYW)

Cancer Research Institute, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Jolly Grant, Dehradun 248016, Uttarakhand, India

MEMORANDUM OF UNDERSTANDING (MoU)

This MoU is made and entered into on September 23, 2022
between

Cancer Research Institute (CRI), Swami Rama Himalayan University (SRHU)
and

Lisbon Academic Medical Centre (North Lisbon University Hospital Centre)
and

Graduate School of Medicine and Faculty of Medicine Kyoto University
and

Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Centre
and

Rajiv Gandhi Cancer Institute and Research Centre (RGCIRC)
for

Global Consortium for Breast Cancer in Young Women (GCBCYW)

Whereas the Swami Rama Himalayan University SRHU is established under Section 2(f) of UGC Act 1956 and enacted vide an Act of Uttarakhand No. 12 of 2013 is, inter alia, providing Education and Hospital Care by the creation and dissemination of knowledge through education, research, innovation and technology besides providing multidimensional humanitarian opportunities.

Whereas the North Lisbon University Hospital Centre is the largest and one of the most prestigious University Hospital System in Portugal. The Lisbon School of Medicine, The University Hospital System, and The Molecular Institute of Medicine are core administrative units of the Lisbon Academic Medical Centre organized in 2009. For this purpose, the Lisbon Academic Medical Centre and North Lisbon University Hospital Centre will be represented by the Oncology Division and Prof. Luis Costa research Lab at the Institute of Molecular Medicine.

Whereas the Graduate School of Medicine and faculty of Medicine Kyoto University is one of the largest medical education universities in Japan, with a rich history of medical education and treatment since 1899. The current institution encompasses excellence in all aspects of modern medicine, healthcare, and health and welfare, in the context of using the state-of-art tools for the education, research and patient care, and in-turn, serving the mankind globally.

Whereas the Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Centre was created in 2002, as an autonomous grant-in-aid institution of the Department of Atomic Energy (DAE), Government of India. The legacy of ACTREC goes back to the Indian Cancer Research Centre (ICRC) established in 1952 in Parel, which was renamed the Cancer Research Institute (CRI) in 1966 and subsequently, amalgamated with the Tata Memorial Hospital (TMH), leading to the creation of the first comprehensive cancer centre in India - the Tata Memorial Centre (TMC).

Whereas the Rajiv Gandhi Cancer Institute and Research Centre is a standalone leading oncology care Centre which was set up in the 1996, in Delhi by Indraprastha Cancer Society and Research Centre, a "not-for-profit organization" formed under the Societies Registration Act 1860.

And Whereas the parties to this Memorandum of Understanding (MOU) are willing to establish a consortium realizing the need to organize the first global consortium dedicated to the cause of BCYW research, treatment, and outreach. Over the last one year, Rakesh Kumar worked closely with his colleagues, Luis Costa (Portugal), Masakazu Toi (Japan), Sunil Saini (SRHU), Sudeep Gupta (ACTREC), Pranela Rameshwar (Rutgers) and other colleagues, and the team felt that the cause of BCYW will be immensely benefitted by adopting a new global team science approach to the disease by organizing a global consortium of like-minded of like-minded leading breast oncologists, scientists, population scientist, economist, and breast cancer survivors.

And Therefore the parties to this MoU decided to enter into an association and have mutually consented to enter into this Memorandum of Understanding (MOU) subject to the terms & conditions as hereunder:-

1. The Premise

Over the last three decades, a substantial progress has been made in our ability to diagnose women's cancer at an early stage and treat with effective targeted therapies and treatment modalities, and in-turn, extend the life of women cancer patients by delaying the recurrence, or curing some breast cancer sub-types[1]. However, the benefits of such advances in cancer medicine are not passed to breast cancer in young women (BCYW) which is increasingly prevalent globally with an upward trend in younger women aged ≤40 years, including, in India, Portugal, Japan, USA, etc. BCYW patients exhibit a worse prognosis than older pre- and postmenopausal patients due to the aggressive nature of cancer subtypes, a high percentage of cases with advanced stages at diagnosis, and a high risk of relapse and death in younger patients[1].

In general, unlike the older women population, no established screening methods are available for the younger population and women aged less than 40 years are usually excluded from the national screening programs, except in cases of acknowledged genetic association with high-risk subgroups. Recently, Rakesh Kumar and colleagues have recognized obvious gaps in the field and the way to move forward[1]. In addition, the team is identified upregulation of a set of cancer-promoting genes in breast cancer in young women (≤40 years), but not in older premenopausal (41-54 years) and postmenopausal (≥54 years) breast cancer patients. Interestingly, many of these genes are also upregulated in normal adjacent breast tissues as well as in breast tissues from healthy donors with no breast cancer, and that some of these proteins are present in human plasma/saliva/urine/human milk – highlighting potential predictive values of such and/or similar relevant secreted molecules[2]. In brief, BCYW exhibits several unique features related to prognosis, diagnostic evaluation, therapeutic decision-making, survivorship, and fertility. In addition, BCYW occurs in an early period of life that involves career and family building and requires support from the family and social circle for a long-time to come, it culminates into a series of complex emotional, economic, social and relationship issues. The reasons for growing trend of BCYW and their overall poor prognosis in young women are unknown and currently, we do not have predictive biomarkers for BCYW.

[1]Kumar R, Abreu C, Toi M, Saini S, Casimiro S, Arora A, Paul AM, Velaga R, Rameshwar P, Lipton A, Gupta S, & Costa L. Oncobiology and Treatment of Breast Cancer in Young Women. *Cancer Metastasis Reviews* **2022**, doi:10.1007/S10555-022-10034-6.
[2]Paul, AM, George B, Saini S, Pillai, MR, Toi M, Costa L, & Kumar R. Delineation of Pathogenomic Insights of Breast Cancer in Young Women. *Cells* **2022**, *11*(12), 1927; https://doi.org/10.3390/cells11121927

2. Founding Purpose

Considering an emergent nature of BCYW as a sub-entity of premenopausal breast cancer, lack of noninvasive validated predictive biomarkers, lack of BCYW-,specific prognostic biomarkers, a limited number of suspected cases reaches a given healthcare facility and most importantly and an overall poor understanding of the underlying pathobiology of the disease, the founder of GCBCYW (Rakesh Kumar) realized the need to organize the first global consortium dedicated to the cause of BCYW research, treatment, and outreach in mid-2021. Over the last one year, he/Rakesh Kumar worked closely with his colleagues, Luis Costa (Portugal), Masakazu Toi (Japan), Sunil Saini (SRHU), Sudeep Gupta (ACTREC), and Pranela Rameshwar (Rutgers), leading to the present MoU draft. The team felt that the cause of BCYW will be immensely benefitted by adopting a new global team science approach to the disease by organizing a global consortium of like-minded of like-minded leading breast oncologists, scientists, population scientist, economist, and breast cancer survivors. This led to solidifying the idea to creation and launching of the first Global Consortium for Breast Cancer in Young Women (GCBCYW) by Prof. Rakesh Kumar from the Cancer Research Institute, Himalayan Institute of Medical Sciences in September 2022.

3. GCBCYW's Founding Membership

The GCBCYW will be initiated by using an institutional/SRHU, five-year Memorandum of Understanding (MoU) by Dr. Kumar and his institution and signed and endorsed by the founding members as well as their Head of the Institutions. The planned GCBCYW will have a dedicated homepage with hyperlinks to all member sites, and visitor to the University will be redirected to the GCBCYW homepage from the department homepage (see details below for details). Overall mission of GCBCYW is to conduct cutting-edge BCYW translational and clinical research using patient-derived biomaterial, to promote a global awareness to the issues germane to BCYW patients, to undertake short-term exchange programs, and to undertake innovative awareness activities and to enhance a global connectivity among BCYW patients and survivors. Founding GCBCYW membership will include Scientific Director and Co-Scientific Directors (i.e., principal investigators from each external sites), and their respective institutions. In addition, Dr. Kumar on behalf of the GCBCYW will recruit leading BCYW NGOs around the globe as consortium's affiliate organizations and have their representatives on the GCBCYW Advisory Committee.

Prof. Rakesh Kumar
https://srhu.edu.in/himalayan-institute-of-medical-sciences/department-of-sugical-oncology-cancer-research-institute/
Prof. Sunil Saini, Dehradun
https://srhu.edu.in/himalayan-institute-of-medical-sciences/department-of-sugical-oncology-cancer-research-institute/
Prof. Sudeep Gupta, Mumbai
https://actrec.gov.in/dr-sudeep-gupta
Prof. Luis Costa, Lisbon
https://imm.medicina.ulisboa.pt/investigation/laboratories/luis-costa-lab
https://www.chln.pt/index.php/as-nossas-especialidades/oncologia/oncologia-medica
Prof. Masakazu Toi, Kyoto
https://www.med.kyoto-u.ac.jp/en/organization-staff/research/doctoral_course/r-047/

Dr. Vaishali Zamre, New Delhi
https://www.rgcirc.org/doctor-profile/dr-vaishali-zamre/
https://www.rgcirc.org/

GCBCYW Headquarter/Address
Rakesh Kumar/Sunil Saini
Cancer Research Institution
Himalayan Institute of Medical Sciences
Swami Rama Himalayan University
Jolly Grant, Dehradun - 248016, Uttarakhand, India
Email: rakeshkumar@srhu.edu.in

4. Planned Specific Activities

4.1. Laboratory Research

A distinctive feature of the consortium will be to provide a new genomic and proteomic perspective to breast cancer in younger women through research with a particular focus on the cellular basis of BCYW, predictive biomarkers, and therapeutic targets.

- ***Tissue-based predictive and prognostic BCYW biomarker research***
  a. RNA- and/or exome-sequencing of BCYW tissues, adjacent normal tissues, and appropriate normal tissues from individuals without cancer (i.e., mastectomy or similar procedures, etc.). Ideally, GCBCYW would like each of its member sites to sequence about 20-25 each of BCYW tumors (genetically predisposed as well as spontaneous) and adjacent matching tissues from the same donor using their internal funds (note: please avoid using breast tumors without adjacent normal tissues in these studies). In addition, it would be useful to also sequence 20-25 samples of normal samples from reduction mammoplasties or similar surgeries each year for three years. Team's approach is designed to have over 100 tumor samples and an equal number of adjacent matching normal samples sequenced each year, making the largest such study for the BCYW group in the World. This will also allow the team to compare distinct inter-racial/ethnic-BCYW cases.

     The first year will be used for securing institutional study approvals and collecting the consents and material if such samples are not readily available. To ensure that all involved RNA/DNA sequencing data can be compared, sequencing by all member sites will follow a same set of technical specifications and platforms to get their samples sequenced within their own country. Such SOPs will be soon shared with all parties. Additional collected tissue samples, beyond what's going for sequenced, would be used for target validation studies. Each site PIs will be expected to secure required IRB ethical approvals from their institutions to recruit patients and donors for document their consent to collect their biomaterial for this project.

  b. To keep uniformity across members, the group has agreed to follow a centralized data processing and analysis. I have discussed with Luis Costa/Lisbon, and he

has agreed to process and perform a detailed analysis in his laboratory, with no cost to other members. This will not have any impact on the ownership of data from the samples – covered in the MoU below.

- ***Plasma-, urine-, saliva, or breast milk-based predictive non-invasive biomarker research:*** The team members are encouraged to also collect body fluids from the patients at the time of securing tissue-based biomaterial and store as per accepted long-term biobank requirements as per SOPs if possible. Therefore, all site PIs are also requested to include the collection of these body fluids in their institutional IRB application. Based on the outcome from sequencing studies in late year 2 or early year 3, the team plans to focus of plasma-based predictive biomarkers using targeted and/or global proteomics platforms. These biospecimens from subjects will be collected at the time of tissue collection and these details will be part of Institutional IRB Ethical Application by the PIs to their respective institutions. Funding for this part of the planned activity will be raised through International Funding Agencies/Charities, after GCBCYW publishes its findings and establish a track-record of stated scholarly team science activities.

4.2. Promote Local and Global BCYW Awareness

Promote activities among targeted age-group, to create an increased awareness that breast cancer is not a disease of older women alone, educate about the self-breast care, provide relevant printed and electronic material, importance of cancer screening tests, and connect them with other BCYW survivors. Here are examples of the planned activities which are likely to be tweaked (and perhaps, further broaden) based on the feedback from our Scientific and Awareness Advisory Committee members.

- Publish "Every Woman's Guide to Breast Cancer in Young Women". Such a guide could be coedited/coauthored by recognized, leading breast cancer oncologist(s). It is our vision that such a booklet will be available to the pargeted population at the price of Coffee with Biscuit to cover the publication cost (or free-of-cost after a few years?). The goal here is to produce a popular, 2-sided, 40-50 numbered pages, readable guide that could be understood by women without any science background. Our hoped quality benchmark would be to ask the question – could this be translated into multiple languages.

    - To achieve this goal, once completed, the content will be edited by a popular science writer on a fee-for-service. Initial goal could be to publish the guide in English and Hindi (for India) and Portuguese (for Portugal).

    - Publication cost of a fixed number of copies, say 2,500 copies each in English or Hindi would be supported by a relevant NGO (through Rakesh Kumar). Similarly, a fixed number of copies in Portuguese will be taken care by Dr. Luis Costa's who will take care of getting the book translated into Portuguese and publish a fixed number of copies in Portuguese with the help of his contact NGO in Lisbon.

- This activity is expected to have a definitive timeline, as agreed by all contributing GSBCYW members (and their associates) to complete. Once we have a detailed table of content, one suggested option would be to have an initial longer draft, from each one of GCBCYW members, and Dr. Kumar will get shorten and have it rewritten by a popular science writer.

- GCBCYW homepage with have a tab for 100 everyday questions/answers about BCYW in lay public format. Founding members will assume responsibility to speak with their friends, colleagues, and others in their circles to generate about 25-35 everyday questions from the perspective of younger women and BC patients, and draft answers in an understandable manner. Such questions/answers with an expected overlaps will be pooled together and finalized following the principle of consensus among all GCBCYW site PIs. Once the Q/A are finalized, a public science writer will edit and make any needed modification for an effective communication.

- Each GCBCYW site PI is encouraged to utilize their resources – if permitted by their operating budget (and/or raise local funds), to design one or two creative local outreach programs and/or implement a time-tested model working elsewhere.
  - For example, GCBCYW-SRHU plans to have a campaign to promote self-care/self-exam among their female students on campus, organize visits to local universities, distribute laminated self-check shower cards in English and Hindi to local students, young patients visiting hospitals, attendees at SRHU's community outreach camps organized by the Rural Development Institute unit of the university, etc.

4.3. Annual Meetings

Conduct BCYW annual on-site meetings on a rotating basis among its members, and a bi-annual on-line Zoom meeting. If agreed by all, one can also combine our planned annual meetings with a broader International BCYW Meeting involving oncologists, scientists, patients, and survivors, etc. as currently no such meetings are in-place. The first annual meeting will be hosted in the second half of 2023 by SRHU, while the second meeting could be the Lisbon University School of Medicine Lisbon. This could be followed by annual meetings at Kyoto University, ACTREC and RGCIRC in an order as agreed upon by the site-PIs.

These annual meetings will be modeled on the Global Cancer Genomic Consortium's (GCGC) five annual meetings from 2010-2015 at TMC Mumbai-India, Lisbon University-Portugal, Kyoto University-Japan, and Jiujiang University-China. The GCGC meetings involved about 1000 collective registered participants, about 75 invited speakers, and resulted in five peer-reviewed, meeting report papers (*PMID22628426, PMC3782003, PMC4091529, PMC4362479, and PMC4773700).*

4.4. Fellows/Students Oncology Training Program

The GCBCYW research format is designed to be suitable for clinical dissertation research by fellows and postgraduates at each site. For example, Dr. Kumar and Dr. Saini/SRHU and Dr. Luis

Costa/Lisbon have already planned to recruit medical PG fellows and/or registered PhD students who might be interested in undertaking close-ended research dissertation studies which could be completed within a predetermined time. The local GCBCYW site PIs will be encouraged to have other site PIs as research committee members of such projects for their on-line participation.

4.5. Fellows/Faculty Exchange Program

To promote International BCYW Research and Treatment and consortium's vision, GCBCYW will encourage short training and exchange visits between the participating institutions. The cost of such international travel and associated visa of the outgoing fellow/faculty will be the responsibility of their institutions (not GCBCYW), while the receiving institution will be responsible for the local stay and local airport transfers. Pre-requisite for such exchange program would be, in-advance development of a closed-ended, detailed activity plan with a clearly measurable outcome. In this context, Rakesh Kumar/SRHU and Sudeep Gupta/ACTREC have discussed and agreed, in-principle, to have an exchange oncology fellow program between two institutions.

4.6. Distinguished Cancer Research Lecture Series

Dr. Kumar's intent is to also use the GCBCYW forum to organize a distinguished cancer medicine lecture series, tentatively named as, "Conversations with Big Thinkers in Cancer Medicine." The idea is to provide a special opportunity to our students, residents, fellows, and faculty to interact with leading visionaries, academic oncologists, and cancer scientists in an informal setting. Besides providing their perspectives and their professional achievements, the speakers would be requested to provide personal advice to the audience on how they too can make big contributions in oncology. The program speakers might rotate throughout the year. The content of the lectures could be video-taped and posted online for a wider audience accessibility. As a part of this series, we also plan to have a focused breakfast session, "Breakfast with the Visionaries in Oncology." To generate a pool of recognized speakers, Dr. Kumar may wish to explore the interest of the founding members and advisory committee members to participate in this series.

4.7.GCBCYW Homepage

The consortium plans to have a user-friendly homepage with visually recognizable LOGO and content navigation tabs. Rakesh Kumar's team and GCBCYW host institution will be responsible for creating and maintaining a GCBCYW website and providing limited public access as well as complete access through a built-in instant email verification system. Examples of the proposed content might include, but not limited to:

1) About - background and purpose
2) Member/Site-PI's brief introduction and hyperlinks to their homepage and institutions (identified by their logos); likewise, each site institution will be free to advertise the consortium on their homepage and have a hyperlink to GCBCYW primary site.
3) Navigation options in 3 languages - English, Portuguese - if desired and managed by Dr. Costa's team, and Japanese – if desired and managed by Dr. Toi's team.
4) Governance - structure, and scientific advisory committee member's brief profiles
5) Science – brief description of translational BCYW research activities
6) Awareness – brief description of translational BCYW research activities
7) BCYW progress around the globe - quarterly scientific update with a short lay paragraphs
8) Progress from the GCBCYW sites teams
9) 100 Question/answers to know about BCYW - written for lay public
10) Major NGOs in India, Portugal, Japan, and USA with hyperlinks and contact details

11) BCYW survivors' stories, including information how their cancer was detected etc.

12) Donate - donate funds and/or pledge for specific GCBCYW activities, i.e., research, outreach, pay for a fixed number of specific screening tests in a year, etc. Such donations will be routed either through specific institutions and/or a new system to be put in-place. This section will also a list of excluded items for using the donor funds such as salaries/wages, food, operational overheads, etc.

5. GCBCYW Governance

Rakesh Kumar will direct the activities of the consortium in consultation with other GCBCYW Site PIs and Advisory Committee. A designated, to-be-named, office and/or research staff manage the daily operations of the consortium in conjunction with Rakesh Kumar and/or Sunil Saini. The founding GCBCYW members fully informed of all relevant information in real-time-

Rakesh Kumar - SRHU, Founder and Scientific Director
Sunil Saini - SRHU, Co-Scientific Director
Sudeep Gupta - ACTREC/TMC, Co-Scientific Director
Luis Costa - Lisbon Academic Medical Centre, Scientific Director
Masakazu Toi - Graduate School of Medicine Kyoto University, Co-Scientific Director
Kazuhiro Iwai - Graduate School of Medicine Kyoto University, Co-Scientific Director
Vaishali Zamre - Rajiv Gandhi Cancer Institute and Research Centre, Co-Scientific Director
Shashwat Sharad -Rajiv Gandhi Cancer Institute and Res. Centre, Co-Scientific Director

Responsibilities -

- Primary GCBCYW contact at the member site, create a team as deemed necessary, and manage all aspects of site involvement in the consortium
- Interact through e-Participate in standing quarterly, 30–45-minute Zoom meeting
- Participate in a group meeting with external advisory committee
- Electronic interactions as needed

○ GCBCYW's Advisory Committee

The activities of the consortium will be guided through an Advisory Committee; suggested, including those agreed, members with whom Rakesh Kumar or Luis Costa have working relationship, are -

Agreed –

Nirmal Kumar Ganguly (Ex-DG, Indian Council of Medical Research)
https://en.wikipedia.org/wiki/Nirmal_Kumar_Ganguly
https://usaindiachamber.org/Dr-Nirmal-Kumar-Ganguly.php

M. Radhakrishna Pillai (Ex-Director, Rajiv Gandhi Center for Biotechnology DBT),
CEO and MD, SAGENOME Pvt Ltd, Trivandrum
http://www.ohmygene.com/ohmygene_aboutus.html

Subrata Sinha, Professor and Head -,Department of Biochemistry, Dean – Research, All India Institute of Medical Sciences, New Delhi
https://www.aiims.edu/en/2014-11-06-07-40-40/faculty/82-biochemistry/10141-dr-subrata-sinha-c-v.html

Ferid Murad, Nobel Laureate in Medicine, Senior Res Advisor Stanford VA Res Institute,
https://www.nobelprize.org/prizes/medicine/1998/murad/facts

Robert Clarke, Director – Hormel Institute, Uni of Minnesota, USA
https://www.hi.umn.edu/portfolio-items/robert-clarke/

Saraswati Sukumar, Barbara B. Rubenstein Professor of Oncology, Johns Hopkins University School of Medicine, USA
https://www.hopkinsmedicine.org/profiles/details/saraswati-sukumar
Pranela Rameshwar, Professor of Medicine, Rutgers NJ Medical School, USA
https://njms-web.njms.rutgers.edu/profile/myProfile.php?mbmid=rameshwa
Ms. Lorna Larsen, Team Shan President, Huntsville, Ontario, Canada
A breast cancer awareness for young women charity
https://teamshan.ca

- *Liaison Associate* for the Samples from the Komen Tissue Bank and associated data
  Jill Henry – Chief Operating Officer, Susan Komen Tissue Bank, Indiana Uni Cancer Center
  https://komentissuebank.iu.edu/about-ktb/meet-our-team.php
- *Prof. Kumar's Collaborator on GCBCYW Science Projects:* Harikrishna Nakshatri, Marian J. Morrison Professor of Breast Cancer Research, Indiana University School of Medicine, USA.
  https://medicine.iu.edu/faculty/13331/nakshatri-harikrishna

Short-listed or In-discussion

Robert (Rob) Coleman, Professor of Oncology, Uni of Sheffield Medical School, UK
https://www.sheffield.ac.uk/medicine/people/oncology-metabolism/robert-rob-coleman
Marc van de Vijver, Professor, Cancer Center Uni Medical Center, Amsterdam
https://www.amsterdamumc.org/en/research/researchers/marc-j.-van-de-vijver.htm
Miguel Martin, Director, Translational Research in Oncology, Madrid, Spain
https://www.trioncology.org/who-we-are/team/miguel-martin/
Breast Oncologist from MSKCC or MDACC
Melissa Bondy, Chair, Epidemiology and Population Health, Stanford Uni Med Sch, USA
https://med.stanford.edu/school/leadership/dean/updates/melissa-bondy.html
Catarina Vasconcelos – International Acclaimed Portuguese Film Director interest in BC
https://en.wikipedia.org/wiki/Catarina_Vasconcelos
https://www.youtube.com/watch?v=H6MtkI0JS0Q
Young Indian Singer, Actress, or BCYW Survivor: Shortlisted to contact immediately after the planned launching of the GCBCYW - Neha Kakkar, Hamsa Nandini, or Gautami Tadimalla
+ Prominent breast cancer advocates/activists from India, USA, Portugal, and Japan.

6. Financial Arrangements and Monetary Collection Activities

The consortium plans to be revenue neutral as there will not be any movement of funds in any form among the institutions. By signing the MOU, each institution will be expected to have required funds/resources to utilize for a set of predetermined activities, i.e., sequencing cost, travel, local team building for various activities, and annual rotating meetings. Any additional funds to GCBCYW will be expended according to the terms of the donor or sponsor wishes, respectively.

7. Term

The planned MOU will be for an initial period of 5 years effective from the date of the last signature on this MOU (the "Effective Date") and may be extended thereafter for additional period by written mutual consent of the Parties, at-least, 4 months before the expiration of the current MOU. In the coming years, the GCBCYW will consider the inclusion of new members who may be strategically positioned to bring new funding with exciting science of global impact. The English version of this MOU shall be the authoritative version of this MOU for all purposes.

8. Amendment

Both the scope of and induction of new GCBCYW site PI and membership to this MOU (i.e. a US-based cancer center), may be amended in writing from time to time upon the mutual agreement of the Parties; provided, however, that any modification, amendment, or supplement to this MOU will only be considered binding where it is signed by a duly authorized institutional representative of named parties in the MoU as well as all founding members as a stand-alone Supplement Memorandum, added to the original MOU.

9. Termination

Either Party may terminate this MOU without cause by providing written notice of termination to the other Party at least 30 days before the date of its intended termination in writing.

10. Institutional IRB and Country-specific Approvals

It will be the responsibility of each site-PI to ensure that he/she obtains proper IRB approval before starting the stated studies and sharing the human tissues/material. Each member site will be requested to share such approval with Dr. Rakesh Kumar and Dr. Luis Costa (centralized sequencing data processing and analysis).

11. Counterparts

The MOU will be executed simultaneously in 6 copies in English language – one for each founding institution, Swami Rama Himalaya University, Lisbon University School of Medicine, Advanced Centre for Treatment, Research and Education in Cancer - Tata Memorial Centre, Kyoto University School of Medicine, and Rajiv Gandhi Cancer Institute and Research Centre, allowing each MOU copy to be deemed as an original.

12. Visas (if applicable or request language for work permits or sponsorship)

The receiving institution will facilitate the acquisition of appropriate visas for students, or visas and work permit for faculty/staff if applicable, from each institution per established guideline and policies. However, students and faculty who may participate in this MOU are ultimately responsible for obtaining required documents and visas in compliance with all relevant visa requirements and immigration laws. This includes payment of any government or other fees that may be imposed for visa processing or immigration services.

13. Local Facilities

While at the host Indian and member institution, students and faculty will use the laboratory and departmental facilities of the host institution, at-large.

14. Housing and Travel Arrangements for Students and/or Faculty

Travel arrangements will be responsibility of the Co-PI from the departing institution, while housing arrangements for visiting students and faculty will be responsibility of the receiving institution.

15. Intellectual Property

The consortium is following the non-commercial policy/model of its activities. All signing parties also agreed that no aspects of this activity will be promoted by its members for any commercial and patent related activities directly or indirectly without letting all the parties be consented in writing and taking other parties into confidence. However, we all are mindful of potentially patentable findings. In such a situation, Dr. Kumar will come out a reasonable arrangement, i.e., divide the percentage equally among all member institutions who performed and shared the human biomaterial sequencing data, and willing to share any patent filing cost in the same ratio (or any other suggested option or options etc.)

16. Publication and Credit

All resulting manuscripts, abstracts, public presentations in any format will be submitted only on behalf of the GCBCYW from the host Institution where the consortium is headquartered in the authorship byline, and affiliations of all institutions will be stated in the allowable footnote or acknowledgement independent of the association of the first author. The first/corresponding author (Rakesh Kumar) of the first manuscript will come from the Host Institution and the last/corresponding author (Luis Costa/Lisbon) in the first manuscript; while lead Co-PIs from other founding sites (Kyoto, ACTREC, RGCIRC, etc.) will be equal co-corresponding authors for their expected, active contribution in the first manuscript. In the following manuscripts, the GCBCYW will decide as per consensus opinion of the founding members following the principles of fairness. Dr. Rakesh Kumar and Dr. Luis Costa will have responsibility of coordinating and monitoring the progress, closely following the timeline, and assembling the manuscripts for the entire period of the consortium. Manuscripts reporting annal meeting reports will come from the Meeting's host institution and also have the first author (also co-corresponding) from the Meeting's host institutions while Dr. Rakesh Kumar and/or Dr. Luis Costa be the last co-corresponding author.

17. Use of the GCBCYW Name, LOGO, and Marks

All GCBCYW members will be free to advertise their involvement and activities in this project without restrictions. However, the textual content of such advertisement needs to be approved by the GCBCYW Founding Members to avoid any misrepresentation. The host institution as well as parties who are signatory on this MoU shall have the right to use of the names and logos of participating institutions only for in the context of GCBCYW and/or highlighting such information for the purpose of their national and/or international collaborations. GCBCYW members will provide a high-resolution jpeg/tiff file of their institutional logos to be used for the GCBCYW logo representing its member sites.

18. Confidentiality

Information concerning either Party's business methods, financial information, future plans, personnel data, trade secrets, information systems, financial and accounting policies, or similar matters, or information designated as "confidential" by a disclosing Party, including but not limited to the financial terms of this MOU, or released under circumstances where a reasonable person would understand that such information is to be treated as confidential, shall be treated as confidential. The Party receiving such confidential information shall take the same precautions as it takes to protect its own confidential information, but in all events reasonable precautions shall be taken, in order to preserve its confidentiality. Confidential information shall not be revealed to third parties without the written consent of the disclosing Party, and neither Party may use the other Party's confidential information for any purpose except for purposes of performing this MOU. This confidentiality requirement shall not apply to: (i) information in the public domain; (ii) information independently developed by either Party without use of the other Party's confidential information; (iii) information received by either Party from a third party under no duty of confidentiality; (iv) a disclosure of information that is required by the institution; and (v) is required to be disclosed by the Receiving Party pursuant to any order or requirement from court, administrative or governmental agency.

19. Authoritative Version. The English version of this MOU shall be the authoritative version of this MOU.

20. Notices. All notices required or permitted under this MOU shall be in writing and delivered by confirmed email, confirmed facsimile transmission or by certified mail, and in each instance shall be deemed given upon receipt. All communications shall be sent to Dr. Rakesh Kumar for SRHU and to GCBCYW Site PIs for other parties as outlined in the Section 3 above.

21. Limitation of Liabilities

In no event parties shall be liable for any indirect, special, consequential, or incidental damages or loss of revenue or loss of business profits, however caused, even if advised of the possibility of such damages under this MoU.

22. Arbitration

All disputes and or/difference hereunder shall be resolved through joint discussion by both the parties. However, if the dispute is not resolved mutually, the same shall be resolved by arbitration in accordance with the provisions of Arbitration and Conciliation Act, 1996. The venue of Arbitration proceedings shall be Swami Rama Himalayan University Dehradun. The decision of the Arbitrator shall be binding on all the parties.

23. Force Majeure

Neither Party will be in default nor liable for any delay or failure to comply with this MOU due to any act beyond the control of the affected Party, provided such Party immediately notifies the other.

24. General Representations and Warranties

Each Party represents and warrants to the other that:

(a) It has the full power and absolute authority to enter into, execute and deliver this MOU and to perform its obligations and the transactions contemplated hereby and, it is duly incorporated and validly registered under the laws of the jurisdiction of its incorporation or organization.
(b) The execution and delivery of this MOU and the performance by it of the transactions contemplated hereby have been duly authorized by all necessary corporate or other internal action of such Party.
(c) The execution, delivery and performance of this MOU does not constitute a breach of any agreement, MOU, arrangement or understanding, oral or written, entered into by it with any third party.
(d) The execution, delivery and performance by it of this MoU does not violate any statute, law, regulation, rule, order, decree, injunction or other restriction of any governmental entity, Court or tribunal to which it is subject.
(e) Each Party warrants to the other that the representations and warranties in this Clause hereof are true and accurate in all respects and do not contain any untrue statement of any fact or omit to state any necessary or material fact.

25. Entire Agreement; Order of Precedence. This MOU contains the entire agreement between the Parties and, except as otherwise expressly provided, supersedes any prior oral or written agreements, commitments, understandings, or communications with respect to its subject matter.

SIGNATURES, SEALS, and DATES

For The Swami Rama Himalayan University –

AGREED:

Date: 5th July 2022

Dr. Vijay Dhasmana, Ph.D.
Vice Chancellor
Swami Rama Himalayan University
Swami Rama Nagar, Jolly Grant
Dehradun-248016

RC

Scientific Co-Director and Site Co-PI of the GCBCYW

Date: 5th July 2022

Dr. Sunil Saini, M.S.
Director – Cancer Research Institute
Himalayan Institute of Medical Sciences

Founder, Scientific Director, and Site PI of the GCBCYW

Date: 7th July 2022

Rakesh Kumar, Ph.D.
Emeritus Distinguished Professor
Cancer Research Institute
Himalayan Institute of Medical Sciences

Signature Page for Hospital de Santa Maria
Faculty of Medicine of the University of Lisbon (FMUL)

AGREED:

Chairman of the Board
Assinado por : **JOAQUIM DANIEL LOPES FERRO**
Num. de Identificação: 05529010
Data: 2022.09.06 11:42:46+01'00'

CARTÃO DE CIDADÃO

Date:

North Lisbon University Hospital Centre, Lisbon Academic Medical Centre.

AGREED:

Date: September 9/2022

Dr. Luis Costa, M.D.
Professor and Principal Investigator
Director-Medical Oncology
Scientific Director and Site PI of the GCBCYW

Area after the last signature on
this page was intentionally left blank

Signature Page for Graduate School of Medicine Kyoto University

AGREED:

Professor Kazuhiro Iwai
Dean
Graduate School of Medicine Kyoto University
Scientific Co-Director - GCBCYW

Date: Aug 30. 2022

AGREED:

Dr. Masakazu Toi, M.D.
Professor of Breast Surgery
Breast Cancer Unit
Kyoto University Hospital
Graduate School of Medicine Kyoto University
Scientific Co-Director and Site PI of the GCBCYW

Date: Aug. 30. 2022

Area after the last signature on
this page was intentionally left blank

Signature Page for Advanced Centre for Treatment, Research and Education in Cancer

AGREED:

Dr. Sudeep Gupta, M.D.
Director
Advanced Centre for Treatment, Research and Education in Cancer
Tata Memorial Centre, Mumbai, INDIA
Scientific Co-Director and Site PI of the GCBCYW

Date: 08/September/2022

Area after the last signature on
this page was intentionally left blank

Signature Page for Rajiv Gandhi Cancer Institute and Research Centre

AGREED:

Mr. D.S. Negi
Chief Executive Officer
Rajiv Gandhi Cancer Institute and Research Centre

Date: 23/09/2022

AGREED:

Dr. Sudhir Rawal, M.D.
Medical Director
Rajiv Gandhi Cancer Institute and Research Centre

Date: 23/Sept 2022

AGREED:

Dr. Vaishali Zamre, M.S., M.Ch.
Rajiv Gandhi Cancer Institute and Research Centre
Scientific Co-Director and Site PI of the GCBCYW

Date: 23/09/2022

AGREED:

Dr. Shashwat Sharad, Ph.D.
Rajiv Gandhi Cancer Institute and Research Centre
Scientific Co-Director and Site Co-PI of the GCBCYW

Date: 23rd Sept. 2022

Area after the last signature on
this page was intentionally left blank