OTHER BIG MEMBER GROUPS' ACTIVITIES

ABCSG

Digitalisation and promotion of young talent – the ABCSG year 2020

2020 was a year full of challenges that will have lasting impact on our lives as individuals and particularly on the working life and professional environment of clinical research. The pandemic hit us unexpectedly, and it had far-reaching consequences for our clinical operations and the daily clinical research routines, thus having a major (and ongoing) impact on clinical studies all around the globe.

However, every crisis also harbours its learnings and provides opportunities: existing operations, plans, and systems must suddenly be re-evaluated, or even completely re-designed. In addition to maintaining the high quality of our clinical and translational studies, **the Austrian Breast and Colorectal Cancer Study Group (ABCSG)** is particularly concerned with the **continuing country-wide education** of clinicians and investigators in the state-of-the-art diagnosis and treatment of breast cancer.

ABCSG goes digital had started, even before he pandemic hit, as a digitalisation initiative to render our many breast cancer continuing education courses and discussion formats increasingly available virtually and for remote participation. However, 2020 deprived us of the "classic" alternatives and forced us to develop, optimise and use digital tools in an expedited manner. This offered us many new opportunities: we were able to attract new target audiences, and we were highly motivated to test new and innovative forms of scientific dialogue and collegial exchange. Eventually, this even led to a process of re-thinking our ways of acquiring knowledge: suddenly, it appeared easy to abandon manifested concerns about organising purely virtual events, or the use of social media for science communication. These means offered us a vital way to stay in close touch with our network, including doctors, nurses, and patients. We are keen to move ahead for **more virtual continuing education content and digital communication in 2021**, and we have already observed raised awareness of its impact. Even once we all may attend long-awaited on-site congresses again, the digitalisation of learning and knowledge will already have further integrated into our daily lives and routines.

"When I announced the ***ABCSG goes digital*** initiative in 2019, I clearly did not expect that 2020 would bring a major boost and acceleration to this modernisation programme. The deadly pandemic, that will hopefully come to an end in the coming months, also brought huge creativity, innovative formats and wonderful new collaborations to our great team", ABCSG president Professor Michael Gnant said, "once more confirming the principle *"The bigger the challenge, the bigger the opportunity."*

Another great achievement for ABCSG in 2020 was the successful establishment of a junior talent platform – the newly formed ***ABCSG Task Force FutureNow***.
Dr Christoph Suppan from the Department of Internal Medicine, Medical University Graz (Austria), and member of the Task Force **FutureNow,** describes the group and its activities as follows: "The Task Force was founded in late 2019 in order to bring together and support younger members of the ABCSG. Currently we are working on establishing a new platform for continuing education, giving younger doctors a stage to ask questions in an encouraging environment. Moreover, we are planning interactive roundtables with principal investigators who are willing to take us on a journey through time and tell us about hurdles and successes of previous studies." As ABCSG president Professor Michael Gnant worded it: "I am very happy that a dream is coming true for me, now that we have finally identified the optimal structure and, most importantly, a number of great persons with almost unlimited potential to continue and to build on current ABCSG successes. This initiative will strongly benefit from our new digital communications and provides us with new options for knowledge transfer and networking throughout the country, beyond our existing member community." The next steps of the Task Force might include identifying potential partners on the international level to create and strengthen a joint young investigator network for breast cancer research.

BCT-ANZ

Founded in 1978, **Breast Cancer Trials (BCT-ANZ)** is the largest, independent, oncology clinical trials research group in Australia and New Zealand. Our research involves multicentre national and international clinical trials and brings together almost 800 researchers in 107 institutions. Over 16,000 women have participated in our clinical trials over the last 40 years.

Board of Directors

BCT-ANZ welcomed **Professor Sherene Loi t**o the Board of Directors. Professor Loi is the BCT-ANZ Study Chair of the **Neo-N** and **DIAmOND** clinical trials and a member of the BCT-ANZ Scientific Advisory Committee. She is the Head of the Translational Breast Cancer Genomics and Therapeutics laboratory at the Peter MacCallum Cancer Centre, Melbourne, as well as Consultant Medical Oncologist in the Breast Service and Head of the Breast Cancer Clinical Trials Unit. **Professor Sunil Lakhani** and **Dr Richard Isaacs** were re-elected to the Board. Professor Lakhani is the Executive Director of Research and Senior Staff Specialist at Pathology Queensland and Head of the Breast Group, Centre for Clinical Research, University of Queensland, Brisbane, Australia. Dr Isaacs is a Medical Oncologist and Head of Medical Oncology at Palmerston North Hospital, New Zealand.

Professor Sherene Loi

New Trials Commenced
Three new trials opened in 2020:

> **BCT 1901 (CAPTURE)** is an Australian clinical trial open to both women and men diagnosed with oestrogen-receptor (ER) positive and human epidermal growth factor receptor 2 (HER-2) negative breast cancer that has returned after treatment with a CDK4/6 inhibitor (such as ribociclib, palbociclib, abemaciclib). It will investigate if treatment with a PI3K inhibitor (alpelisib), in combination with fulvestrant, will improve outcomes for patients with metastatic breast cancer when compared with standard treatment. **Professor Sarah-Jane Dawson is the Study Chair.**

> **BCT 1902 (Neo-N)** is an international clinical trial for women or men diagnosed with unilateral triple negative early breast cancer. It will investigate if using an immunotherapy drug alone prior to the combination of immunotherapy and standard chemotherapy is safe and effective in treating breast cancer before surgery. **Professor Sherene Loi is the Australian Study Chair**.

> **BCT 2001 (Breast-MRI)** is an Australian study that is open to women diagnosed with breast cancer and where the medical treatment team suggest that magnetic resonance imaging (MRI) of the breast will help plan treatment. This study aims to find out if having a breast MRI after being diagnosed with breast cancer might change plans for treating the breast cancer and how this might affect patient outcomes. **Professor Christobel Saunders is the Study Chair.**

GBG

As a leading cooperative study group in the field of breast cancer in Germany, the **German Breast Group (GBG)** manages clinical trials across all major therapeutic areas: neoadjuvant, (post-neo)adjuvant, prevention, surgical and palliative.

GBG consistently delivers high-quality results contributing to improvement breast cancer treatment and patients' quality of life. Being accompanied by broad translational research programmes, GBG-led clinical trials also allow for analysis of biomaterial in academic co-operations worldwide.

Clinical trial status and results

In 2020, results of three major early-stage GBG studies, as well as various high-impact translational research projects have been presented, and results of several clinical trials were released as full publications.

Invasive-disease-free survival and safety results of the **GAIN-2** study were presented at the **ASCO 2020 Virtual Meeting**. In this phase III study, patients with high-risk early breast cancer were randomised to intense, dose-dense epirubicin, nab-paclitaxel, and cyclophosphamide (iddEnPC) vs dose-dense, dose-tailored epirubicin/ cyclophosphamide followed by dose-dense, dose-tailored docetaxel (dtEC-dtD) as adjuvant or neoadjuvant chemotherapy. Overall, there was no difference in invasive-disease-free survival between arms and no new safety concerns were raised, so that the use of both regimen appears feasible in this setting [1].

Long-term follow-up results of the phase III **GeparOcto** study were presented at the **ESMO 2020 Virtual Congress**. Overall, no difference was found for invasive disease-free and overall survival following neoadjuvant chemotherapy with intense dose-dense epirubicin, paclitaxel, and cyclophosphamide, or weekly paclitaxel/liposomal doxorubicin plus carboplatin in case of triple-negative breast cancer (TNBC) in the high-risk breast cancer population. The subgroup of hormone receptor-positive/ HER2-negative breast cancer, however, significantly benefitted from treatment with intense dose-dense epirubicin, paclitaxel, and cyclophosphamide, supporting the concept of effective therapy beyond pathological complete response (pCR) in patients with luminal breast cancer [2].

Results of the international phase III **PenelopeB** study, conducted under the BIG umbrella, were presented at the **SABCS 2020 Virtual Symposium**. The study evaluated the addition of the CDK4/6 inhibitor palbociclib to endocrine therapy as post-neoadjuvant treatment for hormone receptor-positive/ HER2-negative patients with high relapse-risk. After a median follow-up of 43 months the addition of 1 year of palbociclib to endocrine therapy did not significantly improve invasive disease-free survival. No new safety signals were observed. PenelopeB is the first study showing mature invasive disease-free survival results on a CDK4/6 inhibitor as part of a (post-neo)adjuvant therapy in early breast cancer. Further translational research and subgroup analyses are ongoing [3].

Two analyses related to the neoadjuvant **GeparX** study were also presented. Interestingly, a high RANK expression was associated with significantly higher pCR rates, especially in patients with luminal breast cancer, as shown at the **ESMO Virtual Congress 2020**. However, a clinical benefit of denosumab in relation to RANK expression could not be shown [4]. A substudy investigating the potential eradication of disseminated tumour cells (DTCs) with denosumab was presented at the **ASCO 2020 Virtual Meeting**. While DTC-eradication was observed at a slightly higher rate after denosumab plus chemotherapy than after chemotherapy alone, the presence of DTCs at baseline or DTC-eradication after denosumab treatment did not influence pCR rates. With regards to breast cancer subtypes, a potential effect of DTC-eradication on pCR in TNBC was proposed to be further investigated [5].

Results of the randomised, non-comparative phase II trial **GeparOLA**, investigating neoadjuvant treatment with paclitaxel plus olaparib vs paclitaxel plus carboplatin in HER2-negative early breast cancer patients with a homologous recombination deficiency (HRD), were recently published in *Annals of Oncology* [6]. This paper is the first one to compare a poly(adenosine diphosphate [ADP]-ribose) polymerases (PARP) inhibitor containing neoadjuvant regimen with a platinum containing regimen in a HRD early breast cancer population. Additional analyses concerning germline *BRCA1/2* (g*BRCA1/2*) and other panel genes were presented at the **ESMO 2020 Virtual Congress**. Germline *BRCA1/2* mutation status predicted therapy outcome even in patients with HRD tumours. For patients without g*BRCA1/2* mutations, higher pCR rates were observed in the paclitaxel plus olaparib than in the paclitaxel plus carboplatin arm [7].

A notable success at the **ESMO Breast Cancer Virtual** Meeting 2020 was the presentation of the research project on tumour mutational burden and immune gene expression profile of TNBC patients

from the **GeparNuevo** trial. The results were recently published in *Annals of Oncology* [8]. This study showed for the first time that tumour mutational burden and immune gene expression profile are independent predictors of response to neoadjuvant immune checkpoint inhibition.

Two retrospective analyses including patients from the GBG **Brain Metastases in Breast Cancer (BMBC)** registry were recently conducted. The results presented at **ESMO Breast Cancer Virtual Meeting 2020** revealed that several clinical parameters as well as Graded Prognostic Assessment (GPA)-scores were significantly associated with overall survival [9]. An analysis that is of clinical relevance in the context of potential trials examining the benefit of early detection and treatment of brain metastases was recently published in *Cancers (Basel)*. Asymptomatic patients seem to have less severe metastatic brain disease and, despite less intensive local brain metastasis therapy, outcome is still better, especially for patients with HER2-positive breast cancer compared to patients with symptomatic brain metastases [10].

The use of sentinel lymph node biopsy (SLNB) versus no axillary surgery in patients with early invasive breast cancer (clinically/imaging ≤5cm, c/iN0) who were candidates for breast-conserving surgery (BCS), including postoperative whole-breast irradiation, is investigated in the randomised **INSEMA** trial. Recently, an integrated radiation therapy quality assurance review was published in the *International Journal of Radiation Oncology, Biology, Physics* [11]. Assuming ≥80% of prescribed breast dose as the optimal dose for curative radiation of low-volume disease in axillary lymph nodes, at least 50% of reviewed patients received an adequate dose in level I, even with contemporary 3-dimensional techniques. Dose coverage was much less in axillary levels II and III, and far below therapeutically relevant doses.

The final results of the **MALE** study, the first prospective, randomised, multicentre trial evaluating the efficacy and safety of different endocrine treatment options in male patients with breast cancer, were recently published in *JAMA Oncology*. Aromatase inhibitor or tamoxifen plus gonadotropin-releasing hormone analogue vs tamoxifen led to a sustained decrease of estradiol. The decreased hormonal parameters were associated with impaired sexual function and quality of life, however [12].

Ongoing trials and future research

> The phase III, placebo-controlled **GeparDouze** (GBG 96 / NSABP B-59) study is investigating the addition of the immune-checkpoint inhibitor atezolizumab to neoadjuvant chemotherapy in patients with TNBC.

> The phase III **SASCIA** (GBG 102)study started recruitment in 2020 to evaluate the efficacy and safety of post-neoadjuvant treatment with sacituzumab govitecan compared to treatment with physician's choice (capecitabine or platinum-based chemotherapy or observation) in primary HER2-negative breast cancer patients with high relapse-risk after standard neoadjuvant treatment.

> The phase III **TAXIS** (GBG 101; SAKK 23/16/ IBCSG 57-18/ABCSG-53) study was launched in 2020 to investigate the value of tailored axillary surgery.

> In metastatic breast cancer, the **AMICA** (GBG 97) and **PADMA** (GBG 93) trials on CDK4/6 inhibitors ribociclib and palbociclib were amended to include a molecular screening programme that may benefit patients by identifying actionable alterations within the context of precision medicine.

> The prospective and retrospective registry study on **breast cancer in pregnancy and young women (BCP)**, in cooperation with BIG (GBG 29/BIG 03-02), successfully continued and included 2,659 patients as of 31 December 2020.

Two new studies were planned and set-up in 2020 and will start recruitment in 2021:

> The phase III **TruDy** (GBG 103 / DESTINY-Breast01: AGO-B-050; NSABP B-60; SOLTI-2001) study, a collaboration between NSABP, Arbeitsgemeinschaft Gynäkologische Onkologie (AGO-B) and the SOLTI Breast Cancer Research Group, is a multicentre, randomised, open-label, active-controlled trial that was initiated for a head-to-head comparison of trastuzumab deruxtecan (T-DXd) versus trastuzumab emtansine (T-DM1) as adjuvant treatment in a subset of patients with high-risk HER2-positive primary breast cancer.

> The **EUBREAST-01** (GBG 105) study is a surgical trial about the omission of sentinel lymph node biopsy (SLNB) in TNBC and HER2-positive breast cancer patients with radiologic and pathologic complete response in the breast after neoadjuvant systemic therapy. The study will evaluate the 3-year rate of axillary recurrence-free survival after breast cancer surgery in patients without SLNB.

GBG will continue to develop clinical trials and translational research to investigate new therapeutic agents for breast cancer.

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GEICAM

GEICAM's 25th anniversary: #GeneracionesGEICAM Campaign

On the occasion of its 25th anniversary, the **Spanish Breast Cancer Group (GEICAM**) launched the **#GeneracionesGEICAM campaign** aiming to raise awareness about the reality of breast cancer and requesting society's support for cancer research. This initiative was carried out and made public via several videos with testimonies of both patients and professionals.

In the main testimonial, Guiomar, a 25-years-old metastatic breast cancer patient, and Julia, a 25-year old resident oncologist, thank each other for their participation in scientific research, thereby showing the audience that the generosity of patients participating in clinical trials and the work of researchers contribute to advances that increase survival rates and improve quality of life for people with breast cancer. The audio-visual fragments also show brief dialogues between Guiomar and Maria Luisa, a patient diagnosed with breast cancer 20 years ago. They exchange their experiences as cancer patients and highlight the advances that have been made over a period of 20 years, the contribution of research, the role of patient associations, and the need for patients to have access to reliable information about the disease.

From left to right, Guiomar and Julia thanking each other for their participation in scientific research (video-campaign image)

Collaborating with patient associations: metastatic and male breast cancer

Teaming up with patient associations allows collaborative research groups like GEICAM to go further with their research and outreach about the disease.

In 2020, GEICAM established collaboration agreements with two associations representing realities in breast cancer that may not be so frequently discussed: the **Association for Metastatic Breast Cancer** and the **INVI Association for Male Breast Cancer**. Together we have begun to conduct visibility activities.

Research and communications awards

In 2020, GEICAM received two awards of which they are especially proud:

The first award is the annual prize from the **Spanish Group of Cancer Patients (Grupo Español de Pacientes con Cáncer, GEPAC)**, which honours the best initiative in social and scientific research in oncology and which was awarded to GEICAM's study **RegistEM**. RegistEM is the first national registry of patients with advanced breast cancer in Spain. Its results will show in detail the way Spanish professionals manage the breast cancer and the outcomes of these patients.

The second award GEICAM received is the silver **"ASPID" health communication and creativity award for "best digital communication"**, which honoured **GEICAM's 2019 Breast Cancer World Day campaign, #ElAcentoQueloCambiaTodo** ("The emphasis that changes everything"). The most important emphasise of this campaign was: **through scientific research, promoting a future with no fear of breast cancer.**

IBCSG

Changes in the IBCSG Scientific Committee

In 2020 the **International Breast Cancer Study Group (IBCSG)** was pleased to announce **Professor Sherene Loi** as co-chair of the IBCSG Scientific Committee. Professor Loi is a medical oncologist specialised in breast cancer treatment as well as a clinician-scientist with expertise in genomics, immunology, and drug development. She is an internationally recognised leader whose work has led to new insights into the breast cancer immunology field. Professor Loi leads the Breast Cancer Clinical Trials Unit as well as the Translational Breast Cancer Genomics and Therapeutics Laboratory at the Peter MacCallum Cancer Centre in Melbourne, Australia. She is a Professor at the University of Melbourne, the current holder of the Inaugural National Breast Cancer Foundation (NBCF) of Australia Endowed Chair and a research fellow of the Breast Cancer Research Foundation (BCRF), New York. Professor Loi received the AACR Outstanding Investigator Award for Breast Cancer Research during the 2020 San Antonio Breast Cancer Symposium (SABCS) and the 2020 European Society of Medical Oncology (ESMO) Breast Cancer Award.

The IBCSG thanks **Dr Angelo Di Leo**, Head of Sandro Pitigliani Medical Oncology Unit, Hospital of Prato Istituto Toscani Tumori, Prato, Italy who served for 4 years as co-chair of the IBCSG Scientific Committee with **Dr Marco Colleoni**, Director of the Division of Medical Senology at the European Institute of Oncology, Milan, Italy. Drs Di Leo and Colleoni are members of BIG's Executive Board.

JBCRG

BIG studies

The **Japan Breast Cancer Research Group (JBCRG)** is currently participating in the following studies run under the BIG umbrella: **POSITIVE, ALEXANDRA/IMpassion030, OlympiA, PENELOPE-B** and **PALLAS**.

Organisation

JBCRG reorganised its Standing Committee, which is responsible for the organisation's group activities. It also welcomed many new members who will be dedicating their time to research development. In addition, JBCRG revised its Standard Operating Procedure manuals related to research conduct principles.

Activities

With the aim to improve cancer care and raise further awareness about breast cancer and clinical trials, JBCRG doctors in charge of public relations gave presentations on this topic at leading Japanese companies.

Dr Chikako Shimizu from the **National Centre for Global Health and Medicine** was invited to present at **ELC Japan K.K.**

Dr Atsuko Kitano from **St. Luke's International Hospital presented** at **Japan Airlines Co., Ltd.**

Japan Air Lines (JAL) supports breast cancer awareness. The famous Japanese cane logo of JAL was presented showcasing that airplanes have similarities with **medical care and clinical research**: they carry our **dreams** and **hopes** for new destinations.

飛行機
Japan Air Lines (Airplane)

夢
Dream

医療
臨床研究
Medical care and Clinical Research

JAL

希望
Hope

Japan Breast Cancer Research Group

JBCRG's annual meeting

JBCRG's 10th Educational Meeting took place on 15 February 2020. The theme was "Revolution of diagnosis and treatment for breast cancer through artificial intelligence and precision medicine". Around 100 investigators attended.

LACOG

2020 was unique and challenging for all of us. Despite the pandemic, we were able to continue our studies with the great effort and commitment of LACOG's staff, investigators, and sites. 2020 was also remarkable to LACOG as we presented our first study in prostate cancer in an oral abstract session at the **ASCO 2020 Annual Meeting.**

LACOG's new visual identity

In 2020, as part of the group's communication strategy, an update of LACOG's visual identity was developed. The LACOG logo was updated and a specific logo for each LACOG cancer group and specialty, such as the LACOG Breast Group, was created. Additionally, LACOG launched a new website where current information regarding studies, groups, and events can be found. More information is available at www.lacogcancerresearch.org

Ongoing Studies

LACOG is currently participating in two trials under the BIG umbrella: **ALEXANDRA/IMpassion 030** (BIG 16-05), which is open for recruitment in Brazil and Mexico, and **PALLAS** (BIG 14-03), with the participation of Mexican sites. PALLAS' first study results were presented at the **ESMO Virtual Congress 2020** and published in *The Lancet Oncology.*

With the **LATINA** study (LACOG 0615), LACOG is conducting the most comprehensive breast cancer prospective registry in Latin America. In December 2020, the study included more than 1,600 patients of a planned 4,500 from 35 sites in 11 countries.

In 2020, the LACOG Breast group and GBECAM published the first results of the **AMAZONA III** prospective registry regarding the impact of sociodemographic factors and health insurance coverage in the diagnosis of breast cancer in Brazil. The results showed that patients from the public health system were diagnosed more frequently with symptomatic disease, at later stages, and with more aggressive breast cancer subtypes than patients with private health coverage. This study brings to light important information to identify gaps to optimal care in healthcare systems in Brazil. Two posters were presented at the **Virtual San Antonio Breast Cancer Symposium 2020 (Virtual SABCS 2020)**. A sub-analysis of AMAZONA III showed that around 10% of patients in Brazil do not return to work, get divorced, or end their partner relationship within 1 year of their breast cancer diagnosis. Personal income and surgery type were associated with higher risk of not returning to work, whereas no specific variable was related to marital status change. The main message of this analysis is that government social support, specifically to help people to get back to work, remains critical for breast cancer patients, especially shortly after they have been diagnosed with the disease.

Another study presented at the **Virtual SABCS 2020** is **LACOG 1218**, which evaluated the influence of physicians' lifestyles on prescribing healthy habits to their breast cancer patients. The study, led by Dr Renata Cangussu, showed that the majority of physicians treating breast cancer patients have a healthy lifestyle. Physicians who regularly practise physical activity or who are older than 50 were more likely to advise lifestyle modification. Only half of the physicians treated obesity or referred these patients to specialists. This may have an impact on patient outcome.

Several study proposals from breast investigators in Latin America are being evaluated to be developed by LACOG in the years to come.

Dr Renata Cangussu, PI of LACOG 1218 Study
Dr Gustavo Werutsky, PI of LACOG 0615/LATINA Study

Biobank and Translational research

In years, LACOG has been implementing biological material collection into its clinical and epidemiological studies. Recently, a biobank partnership was established with the Pontificia **Universidade Católica do Rio Grande do Sul (PUCRS)** to manage all the samples from LACOG studies. "LACOG's wish for the near future is to provide support and collaborate in translational research projects in order to better describe molecular and genetic characteristics of our patients", said **Dr Gustavo Werutsky**, Chair of LACOG.

The Instituto Projeto Cura in 2020

Despite the tough scenario we all faced in 2020 due to the pandemic, the **Instituto Projeto Cura (CURA)** continued its work. Its efforts consisted in making 2020 memorable and positive even during hard times. For example, a crowdfunding campaign was developed to raise funds to pay for 1,000 laboratory tests needed for four research projects led by LACOG's Head & Neck Cancer Group. It also promoted the **1st Brazilian Workshop on the "Benefits of Research in the Fight against Cancer"**, for which awareness of non-governmental organisations (NGOs) leaders and patients was raised. Additionally, the **2nd edition of the Renata Thorman Procianoy Award** was held, with Dr Fernando Maluf as the recipient.

CURA, with its headquarters in Brazil, and working closely with LACOG, is the only organisation in Latin America dedicated to planning and executing actions to raise awareness and to collect funds to support multiple research activities that aim to combat cancer. According to Fernanda Schwyter, president of the Institute: "Such initiatives are essential to foster a philanthropic culture in Brazil. As far as we know, this has been the largest fundraising campaign carried out in Brazil to support scientific research. And that is just the beginning".

CURA collects over R$ 180,000 to support head and neck cancer research

From July throughout September 2020, the "1,000 lab tests for research against cancer" crowdfunding campaign raised R$ 184,000 to be invested in various scientific projects to combat head and neck cancer in Brazil. The initial objective of collecting funds to pay for the basic costs to collect and store 1000 laboratory tests on blood and biopsy samples donated by patients exceeded the projected target by 143%, gathering an amount equivalent to the basic costs of 1,430 tests.

This result was only made possible thanks to the dedication of doctors and researchers from Brazilian Group on Head & Neck Cancer (GBCP) and LACOG, which, using an innovative digital strategy, mobilised 335 donors for the cause. The campaign also involved the strong digital participation and support of doctors, celebrities, digital influencers, and patients. Despite the difficulties posed by the Covid-19, the donation webpage recorded over 7,000 digital accesses. In addition to collecting funds, the initiative raised awareness about the importance of supporting scientific research in Brazil.

1st Brazilian workshop on "Benefits of Research in the Fight against Cancer"

The event, which took place on 7 and 8 October, was attended by over 200 participants. CURA gathered physicians, cancer patients, leaders of NGOs and other interested individuals in a virtual and historical event designed to exchange knowledge. Based on a pedagogical concept, the workshop was a pioneering in Latin America. It enabled discussions with the different audiences about the importance of scientific research, including 8 lectures and the presence of renowned experts to clarify doubts. The event was kindly sponsored by Roche. Registration was free.

The workshop could count on the presentations of the following scientific lecturers and investigators: Dr Andreia Melo(INCA), Dr Lilian Arruda (IBCC), Dr Juliana Mauri (IBCC), Dr Carlos Barrios (LACOG), Dr José Márcio Barros de Figueiredo and Dr Paulo Fernandes (IQVIA), Dr. Heloisa Resende (Hospital HINJA), and Dr Fabio Franke (Aliança Pesquisa Clínica).

Discussions were also held in small groups, thus ensuring direct access of participants to medical coordinators and investigators: Dr Wiliam William (Hospital Beneficência Portuguesa), Dr Gustavo Werutsky (LACOG), Dr Renata Cangussú and Dr Samira Mascarenhas (Oncologia D'Or), Dr Fernando Moura (ICESP), Dr Ricardo Caponero (Hospital Alemão Oswaldo Cruz) and Dr Graziela Del Molim (Hospital Beneficência Portuguesa). These group discussions also involved facilitators from CURA, namely Lisiane Mota, Marie Caponero, Alcina Mara Rodrigues and Fernanda Schwyter.

2nd edition of the Renata Thorman Procianoy Award

Oncologist **Dr Fernando Maluf** was the recipient of the Renata Thormann Procianoy Award, granted by CURA to honour Brazilian scientific researchers who have been contributing to improve the treatment and survival of patients.

The winner was announced on 9 June during the Brazilian edition of the Online 2020 Best of ASCO. This event is officially authorised by ASCO (American Society of Clinical Oncology), which promotes, on a yearly basis, the largest and most important worldwide oncology congress.

Dr Fernando is the principal investigator of a 100% Brazilian study addressing a new drug to combat prostate cancer in advanced stages. Traditionally, the treatment procedure for this type of cancer is hormonal castration – chemical or surgical – as testosterone is the main nutrient for the malignant cell of prostate cancer. However, according to Dr Maluf: "The reduction of testosterone among men results in several side effects: loss of libido, sexual potency, bone and muscle mass and neurological effects, in addition to hot flashes, usually reducing the quality of life to a very low level."

The study presented at ASCO involved 128 patients who received drugs that prevent the delivery of testosterone to the cancer cells. According to the oncologist: "This is a global pioneering study that assesses new strategies to face prostate cancer in advanced stages, with the objective of, after a confirmatory study, replacing hormonal castration with these new drugs, preserving the same efficacy, but increasing quality of life". Coordinated by LACOG, with headquarters in Porto Alegre (RS), the clinical trial involved 14 research centres and several Brazilian oncologists.

Dr Fernando Maluf works at the Beneficência Portuguesa Hospital of São Paulo and The Israeli Albert Einstein. He is a faculty member at the Medical School of the Santa Casa de São Paulo.

Dr Fernando Maluf, recipient of the 2nd edition of the "Renata Thormann Procianoy Award" and Fernanda Schwyter, president of Projeto Cura Institute

SAKK

The **Swiss Group for Clinical Cancer Research (SAKK)** is a non-profit organisation that has been conducting clinical trials in oncology since 1965. Its primary objective is to research new cancer therapies, to further develop existing treatments, and to improve quality of life for patients with cancer. This takes place through cooperative projects within Switzerland and in collaboration with centres and study groups abroad.

With regular training opportunities, events, and symposia, SAKK promotes the cooperation and further education of researchers in clinical cancer research.

SAKK organises annual events such as:
- **Chicago in the Mountains**, to discuss the most important news from the **ASCO Annual Meeting**
- **ESMO in the Alp**s, organised in parallel with the **ESMO Congress**
- **Swiss PostESMO**, to present the most important data from **ESMO**

SAKK's annual mentoring programme for young oncologists, the **Young Oncology Academy**, focuses on providing young talents with insights into the successful development, management, execution, and publication of a clinical trial. As part of the academy, participants also attend the **ESMO congress**, the **EHA** (for haematologists) or **ESTRO** (for radio-oncologists) congresses.

SAKK, a long-term member of IBCSG and BIG, is or has been working closely with prominent breast cancer experts such as **Professor Aron Goldhirsch, Professor Monica Castiglione-Gertsch, Professor Beat Thürlimann** and **Professor Stefan Aebi.**

In 2020, the **SAKK Project Group Breast Cancer (PG BC)**, which centralises about fifty members including university hospitals, public hospitals, and private cancer centres, recruited 560 patients in breast clinical trials. The group is proud to have contributed actively to some major practice-changing trials conducted under the umbrella of two collaborative networks, **IBCSG** and **BIG**. The collaboration continues with SAKK being involved in the following trials: **OlympiA** (BIG 6-13 / NSABP B-55), **PALLAS** (BIG 14-03 / ABCSG 42), **POLA**R (IBCSG 59-19 / BIG 18-02), **POSITIVE** (IBCSG 48-14 / BIG 8-13), and **TOUCH** (IBCSG 55-17).

The SAKK PG BC is also the initiator of several ongoing trials exploring loco-regional, systemic, or quality of life interventions.

TAXIS trial (SAKK 23/16)
This trial is a unique large phase III trial randomising 1,500 patients with axillary lymph node involvement. Standard axillary lymph node dissection is compared to tailored axillary surgery, a new technique that aims at selectively removing the positive lymph nodes. The trial aims to contribute significantly to the de-escalation of axilla surgery. Thanks to an international effort bringing together Switzerland (25 sites), Germany (7 sites), Austria (7 sites), Hungary (3 sites), Italy (1 site) and Lithuania (1 site), the recruitment is proceeding as planned, with 400 randomised patients as of this writing.

WISE trial (SAKK 95/17)
This phase III trial assesses the impact of a 24-week activity programme (monitored by a tracking device) on aromatase inhibitors induced arthralgia (joint pain). The target recruitment of 350 patients was reached more than one year ahead of schedule, underlining the interest of the patients and the centres in participating in trials aiming to improve quality of life.

REDUSE trial (SAKK 96/12)
This phase III trial compares denosumab administered every 4 weeks versus every 12 weeks in term of prevention of symptomatic skeletal events in patients with metastatic breast or prostate cancer. The trial is being conducted in Austria, Germany, and Switzerland.

VISION (SAKK 23/18)
In this trial, vacuum assisted biopsy immediately before surgery is used as a surrogate for patient's response to neoadjuvant chemotherapy for breast cancer. The investigators will attempt to resolve any limitations of previous trials conducted in the past and that failed.

SOLTI

Interview with Dr Tomás Pascual

Dr Tomás Pascual is the newly appointed Chief Scientific Officer of the SOLTI Breast Cancer Research Group (SOLTI). In his words: "At SOLTI we focus our research on tumour biology because we know that it is the key to the paradigm shift".

What do you think is SOLTI's main contribution as a cooperative group dedicated to clinical and translational research?

Dr Tomás Pascual: "Cooperative academic research groups are very necessary because they promote independent research of excellence and, in the case of SOLTI, we also encourage the creativity of researchers in the generation of ideas, turning scientific-medical concepts into clinical trials. In recent years, SOLTI has promoted disruptive and innovative trials such as **CORALLEEN**, **PAMELA** and **PATRICIA.**"

Where do ideas for designing original clinical studies come from?

Dr Pascual: "Day-to-day clinical experience with patients gives us an endless pool of ideas because cancer is a complex disease that, even when we're dealing with the same type of tumour, behaves in very different ways. This is one of the reasons why SOLTI's research programme is focused on studying the biology of tumours from a clinical point of view. This new vision allows us to better understand why a drug is not effective in a group of patients, to search for new treatment regimens or to select a specific population with a high possibility of responding to a drug, for example."

Many cancer patients do not respond to standard treatment and, after several treatments, they remain without a therapeutic alternative. What is SOLTI's strategy for those patients?

Dr Pascual: "SOLTI provides the expertise of 25 years of developing very specific clinical studies based mainly on tumour biology. Our fundamental purpose is to carry out studies that have a direct impact on the patient and that respond to fundamental questions about the disease and to unmet medical needs. That's why we prioritise conducting studies that focus on new therapeutic targets and the application of new treatment protocols that can change the paradigm of clinical practice in the approach and treatment of the disease."

Of the studies currently being carried out by SOLTI, which ones do you think could make a difference in current clinical practice?

Dr Pascual: "At SOLTI we group the studies into three programmes, according to their design: the **Clinical Trial Programme**, the **Window Programme** and the **Biomarker Programme**. However, we can look at the same studies from another point of view and group them based on a **functional perspective**: a **first group** that includes studies aimed at improving the prognosis of **metastatic tumours** with hormone receptor and HER2-negative expression, selecting subgroups of patients who present a poor prognosis factor or resistance to an established treatment. The **second category** includes studies aimed at better characterising the **biomarkers** that could determine response-probability to a specific drug. And, finally, the **third category** includes studies in **early breast cancer**, mainly in residual disease, which includes new treatment strategies that improve prognosis."

What do you think are the main contributions that SOLTI has made during its 25 years' history?

Dr Pascual: "In the last 25 years, there have been many **advances in the knowledge and treatment of breast cancer** and SOLTI has definitely contributed to these achievements. One of our main singularities has been to differentiate ourselves by having opened pioneering lines of research, such as in the field of the neoadjuvant treatment, and generating hypotheses based on biomarkers."

How do you think cancer research should evolve?

Dr Pascual: "From my point of view, the fundamental thing is that we learn to look at the whole picture of the disease, and not only at parts of it. This reminds me of the Indian folk tale of 'The six blind wise men and the elephant'. In short, it tells the story of six blind men who spend hours competing to see who is the wisest. One day, an elephant passes through the village and they discuss its shape. Undoubtedly, all the wise men were partially right, since all the forms they described were true. However, undeniably all of them were also wrong because they were unable to depict the real, whole image of the elephant."

"Just like the elephant, cancer is an entity that all experts must observe, each from his or her perspective and specialty. But only by putting together all this collective knowledge, will we be able to draw a silhouette that is as close to reality as possible."

TROG

The DCIS study (BIG 3-07 / TROG 07.01)

BIG and the Trans Tasman Radiation Oncology Group (TROG) Cancer Research's decade of collaboration on the DCIS study has reached the key milestone of main analysis

The principal goals of treatment of ductal carcinoma in situ (DCIS), which accounts for up to 25% of new breast cancer diagnoses, are to minimise the risk of progression to invasive breast cancer and impact on quality of life of patients. Radiotherapy after breast conserving surgery for non-low risk DCIS reduces the risk of local recurrence but is associated with radiation-related toxicity. In contrast to invasive breast cancer, there is no high-level evidence on the optimal radiation dose fractionation for DCIS to guide patients and clinicians in achieving the principal goals of treatment.

The DCIS study is an academic, investigator-led, randomised phase III study of radiation doses and fractionation schedules for DCIS of the breast. It aims to individualise radiotherapy for patients with non-low risk DCIS following breast conservative surgery to achieve long-term disease control with minimal toxicity.

The study was activated in Australia and New Zealand in 2007, and internationally in 2009 in collaboration with the BIG network including the Canadian Cancer Trials Group (CCTG), the European Organisation for Research and Treatment of Cancer (EORTC), the Scottish Cancer Trials Breast Group (SCTBG), the International Breast Cancer Study Group (IBCSG) and Cancer Trials Ireland (CT-IRE). With the powerful momentum generated by the global investigator team, the accrual of 1,608 patients from 136 centres in 11 countries was completed on 30 June 2014, two years ahead of schedule.

The international collaboration has successfully reached the key milestone of the 5-year main analysis on the primary endpoint of time to local recurrence, and the results were presented at the **San Antonio Breast Cancer Symposium (virtual SABCS 2020, 8-12 December, 2020)** by **Professor Boon Chua**. In addition, the investigator team has also completed the first international study of cosmetic outcomes in patients with DCIS treated by breast conserving surgery and adjuvant radiotherapy. It represents the largest prospective evaluation of cosmetic outcomes

for women with DCIS published to date (*Radiotherapy and Oncology 2020*;142:180–85). The team has also published an analysis of patient reported outcomes including fatigue, physical functioning, body image and perceived risk of developing invasive breast cancer following breast conserving surgery and radiotherapy for DCIS (*The Lancet 2019*;394:2165-2172). Collectively, these results provide the data to support informed treatment decision and will likely have a significant impact on clinical practice internationally.

Importantly, the prospectively collected DCIS tumour specimens of BIG 3-07 / TROG 07.01 are being centrally reviewed by an international panel of expert breast pathologists, and provide a unique biological resource to develop and validate a clinical diagnostic test that will predict the likelihood of recurrence, in particular invasive recurrence. The ability to distinguish patients with DCIS at high or low risk of recurrence will facilitate personalised management to optimise patient outcomes. Analyses are actively in progress.

Final analysis of the DCIS study is planned for 2024. The successful conduct to date of this academic, investigator-led study is made possible only by the strong and enduring international alliance of the BIG network.

The study is funded by the Australian National Health and Medical Research Council, Susan G. Komen for the Cure®, Breast Cancer Now, OncoSuisse Swiss Federation Against Cancer, Dutch Cancer Society and Canadian Cancer Society.

For further information, please contact Study Chair, Professor Boon H Chua (Boon.Chua@health.nsw.gov.au).

WSG

For 27 years, the **West German Study Group (WSG)**, an academic study group, has been designing, organising and conducting breast cancer clinical trials. With our trials, we aim to develop new therapeutic strategies that significantly improve efficacy and tolerability in comparison with existing standard therapies. Our scientific work focusses on the individualisation of breast cancer treatment (which patient needs which treatment?) and the development of de-escalated therapeutic strategies. More than 12,000 patients have already participated in our studies.

Germany-wide, WSG collaborates closely with over 200 breast centres, thereby contributing to bringing the latest findings in the therapy of breast cancer directly into everyday clinical treatment. Through this large network of study centres, WSG also collaborates with several international partners such as **Barts Cancer Institute** (BCI, Queen Mary University of London) and the **European Organisation for Research and Treatment of Cancer (EORTC)**. WSG is responsible for the conduct of collaborative trials in Germany. Currently, there are 2 international collaborative studies **conducted in Germany under the responsibility of WSG: BARBICAN** and **ECLIPSE.**

Professor Nadia Harbeck

Activities in 2020

At the **ASCO 2020 Annual Meeting**, the first efficacy results from the **TP-II trial** were presented. It was shown that in early HR+/HER2+ breast cancer, a de-escalated chemotherapy regimen (paclitaxel + double HER2 blockade) was superior to a de-escalated chemotherapy-free regimen (endocrine therapy + double HER2 blockade) with regard to achieving pCR (pathologic complete response). However, the trial's survival results are still awaited, and these will determine what recommendations for a de-escalated chemotherapy regimen in HR+/HER2+ early breast cancer can be made.

At the **ESMO Virtual Congress 2020**, survival data from the **ADAPT HR+/HER2+** study were presented, showing excellent 93% 5y DFS (disease-free survival) in patients with pCR after only 12 weeks of T-DM1 +/- ET (even without further chemotherapy). These promising data may serve as a basis for further prospective trials aimed at determining how to avoid overtreatment in carefully selected patients with HER2+ early breast cancer. Moreover, translational analyses showed that mutations associated with endocrine resistance and metastatic breast cancer are enriched in short-term endocrine treated primary luminal breast cancers with impaired Ki67 response.

ESMO Lifetime Achievement Award 2020 for Professor Nadia Harbeck

Professor Nadia Harbeck, one of the Medical Directors at WSG, Head of the Breast Centre and Chair of Conservative Oncology at the LMU University Hospital's department of Obstetrics and Gynaecology, Germany, has won ESMO's Lifetime Achievement Award in **recognition of her career-long commitment to global cancer research and education.**

The WSG-ADAPT-HR+/HER2- study

The study was conducted by the West German Study Group and 5-year survival data were presented orally at the Virtual **San Antonio Breast Cancer Symposium**. Within ADAPT HR+/HER2- adjuvant treatment decision-making was guided by a predefined algorithm combining information from the 21-gene expression assay (Recurrence Score, RS) and Ki-67 response to 3-week preoperative endocrine therapy.

In summary, about half of the 5,000 patients in the study population (all candidates for chemotherapy by conventional criteria) could be spared chemotherapy. Building on the findings from **TAILORx** and **RxPONDER**, ADAPT HR+/HER2- generates important information, especially for pre-menopausal women. In endocrine-responsive tumours we could not detect age dependent effects in the low and intermediate risk score (RS) populations in patients with pN0-1 disease. Survival data for these patients are excellent, so it is unlikely that they will obtain a clinically meaningful benefit from chemotherapy.

Data presented from the neoadjuvant part of the study by **Dr Sherko Kümmel** showed pCR data from 427 patients in the nab-paclitaxel arm and 437 in the paclitaxel arm. PCR was significantly higher in the nab-paclitaxel arm. RS > 25 and tumour size were independent predictors of pCR. Patients with high RS > 25 but endocrine response had a low rate of pCR (5,6%).

Ongoing and future trials

ADAPTcycle

WSG-ADAPTcycle is a prospective, (neo)adjuvant, randomised phase III trial. It is investigating whether patients with HR+/HER2- early breast cancer identified during screening as intermediate risk (based on Oncotype DX and response to 3 weeks of endocrine therapy [ET]) derive additional benefit from 2 years of the CDK4/6 inhibitor ribociclib combined with ET compared to chemotherapy (CT) (followed by adjuvant ET). Co-primary endpoints are disease-free survival (DFS) and distant DFS. 5,600 patients will be screened, of which 1,670 will be randomised. The study started in July 2019 and by the end of December 2020, 1,291 patients had been screened and 314 randomised.

ADAPTlate

WSG-ADAPTlate is a prospective, randomised phase III trial. ADAPTlate seeks to evaluate whether enhancing endocrine therapy (ET) with a CDK 4/6 inhibitor is superior to ET alone in patients with clinical or genomic high risk early breast cancer, even 2-6 years after their initial diagnosis. Primary objective is to demonstrate superiority of invasive disease-free survival (iDFS) of abemaciclib + ET vs. standard ET. It is planned to screen 1,250 patients of which 903 will be randomised. The study started in September 2020 and by end December 2020, 21 patients had been screened and 12 randomised.

Keyriched 1

WSG-Keyriched 1 is a prospective, single-arm neoadjuvant phase II single arm study. This hypothesis-generating trial is investigating the rate of pCR in patients with HER2-enriched breast cancer receiving four cycles of the dual anti-HER2 blockade (trastuzumab and pertuzumab) in combination with the checkpoint inhibitor pembrolizumab. The intention is to screen 82 patients of which 46 will be included. The study started in August 2020 and by the end of December 2020, 41 patients had been screened and 18 enrolled.

Concepts for future trials are being elaborated, especially to address the clinical needs in triple-negative and HER2+ breast cancer.