# Grant Agreement no. 777167

# BOUNCE

## *Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back*

Research and Innovation Action
SC1-PM-17-2017: *Personalised computer models and in-silico systems for well-being*

## Deliverable 8.2d: Dissemination & Scientific Workshop Activities Report

Due date of deliverable: 30-04-2022
Actual submission date: 29-04-2022

Start date of Project: 01 November 2017          Duration: 54 months

Responsible WP: CHAMP

# 0. Document Info

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## 0.2. Documents history

| Document version # | Date | Change |
|---|---|---|
| V0.1 | 10 March 2022 | First draft |
| V0.2 | 22 April 2022 | First complete draft |
| V0.3 | 265 April 2022 | Final version for internal review |
| V0.4 | 28 April 2022 | Final version to be submitted |

## 0.3. Document data

| Keywords | Dissemination, Communication, Stakeholder Engagement |
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|  |  |

# 1. Table of Contents

# 2. Executive Summary

The overall objective of the Dissemination Work Package 8 in BOUNCE is to prepare future impact and exploitation by promoting awareness of the project and the foreground generated. The current document entitled "Deliverable 8.2d Dissemination & Scientific

Workshop Activities Report" refers to the third report on the dissemination activities implemented by the BOUNCE project during its fourth year.

D8.2d is a public deliverable of the BOUNCE project, part of the WP8, and consists of an update of "D8.2a,b and c: Dissemination & Scientific Workshop Activities Report & Deliverable 8.3a,b and c: Communication Activities Report" that was submitted to the European Commission in  May 2021 and resubmitted December 2021. The current deliverable addresses an update of the actions and activities that were so far implemented and completed, those ongoing and those planned in order to achieve the project's widest promotion, greatest visibility and awareness to the external audience.

## 3. Dissemination activities update

This section provides an overview of the BOUNCE study dissemination activities performed during November 2020 to April 2022. These activities are in continuous online update in the Dissemination Registry Table (see Appendix 1). The Table includes the following detail about each performed activity:

- the content and aim/objective of the activity
- the target audience

During this reporting period, WP8 focused its efforts on the intensification of dissemination activities, dissemination of preliminary pilot results concepts and sub studies results, update of advertising materials and expansion of the stakeholders' network and encouragement of further engagement in the BOUNCE project activities. This was performed through various communication channels and dissemination activities.

The main objectives targeted during the reporting period were:

- Maintain and regularly update the BOUNCE Dissemination Registry Table.
- Intensify dissemination activities (organisation of events; participation in third party events, publishing activities (articles, interviews) and producing press releases;

- Perform dissemination events to increase visibility for the project to a multidisciplinary audience;

- Increase participation in third party events at national and international level to raise the awareness and the visibility for the project;

- Intensify efforts to support activities that are relevant to exploitation;

- Exploit the social media accounts for communicating messages and raise interest in a wider audience;

- Improve regularity of website update;

- Prepare, create, design and deliver newsletter issue;

- Provide the deliverables and reports corresponding to the reporting period.

## 3.1. *Dissemination activities intensification*

The BOUNCE consortium is fully aware of the importance of dissemination activities, and each partner is committed to taking maximum effort within this domain of activities. The project budget dedicated to dissemination activities is limited and it is therefore our goal to make the maximum outreach with the least possible costs.

### 3.1.1. BOUNCE dissemination events

To increase visibility and exposure of the project, the BOUNCE consortium organised a 4th and final BOUNCE Dissemination event:

The fourth dissemination event was organized by CHAMP on October 8th 2021 (M48) and was held virtually as a scientific workshop. There were approximately 62 participants attendees, which included oncologists, psychologists, nurses and patients advocates. The major aim of this event was the presentation of preliminary data from the work done on the BOUNCE project as well as the promotion of awareness on mental health in breast cancer patients, discussing multidisciplinary care path approaches concerning mental health issues as well as latest biomedical research on depression. The event covered three main topics during three sections. In the first session, entitled "Patient-Centered Care in Breast Cancer", several health care providers perspectives were presented, highlighting the importance of multidisciplinary work in the oncology across different health professionals (oncologists, mental health care providers, nurses), as well as the patient

perspective. The aim was to demonstrate the importance of the patient-centered care model in oncology for better disease outcomes. The second session of the meeting was dedicated to Neurocognition in breast cancer (BC). The current evidence about neurocognitive deficits in this population was presented by Kathleen Van Dyk (researcher at UCLA Semel Institute & Comprehensive Cancer Center) and the emerging research on this topic was presented by Sanne Schangen (Cognition group leader, Netherlands Cancer Institute). The possible cognitive changes in breast cancer patients were then explained, including the main symptoms and diagnostic testing methods, as well as intervention programs that are now being proposed and applied to this issue. Given the comorbidity rates between cancer and mental health issues, the last session, entitled "Biomarkers of Depression in Cancer patients", focused on new research in mental health and was devoted to the discussion of some biological factors involved in depression in the oncological population.

Attendees to Bounce workshop were also invited to a public session happening later in the same day. This session was organized by the breast unit of the Champalimaud Clinical Center as part of the annual Breast Unit open day, dedicated to external health professionals, cancer patients and general public. The topic was digital health, artificial intelligence and patient centered medicine with a roundtable discussion that included policy makers, digital health experts in academia, commercial technical providers, ethics experts and health professionals. This public session was attended by 175 Portuguese participants.

### 3.1.2. Participation in third party events

Bounce study's dissemination activities rely heavily on third party events and participation in conferences

Below is a list of the events and its current situation.

| Partner | Activity Title | Type of activity | Description (if applicable) | Date | Location | Organiser | Target audience | Attendance | Status | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| FORTH | ISWC 2020 | Presentation | Developing the BOUNCE Psychological Ontology | 1-6 November 2020 | Virtual | International Semantic Web Conference | Biomedical Engineers | N/A | Completed | |
| CHAMP & BOUNCE Consortium | International Congress of Psychology 2020 | Hosting Symposium/special session/workshop | "Interdisciplinary approaches to assess psychological resilience in | 18-23 July 2021 | (Virtual) Prague | https://www.icp2020.com/ | Psychologists, nurses, physicians, biologists, epidemiologists | >1000 | Completed | Rescheduled due to Covid pandemic. |

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|---|---|---|---|---|---|---|---|---|---|---|
| | | | breast cancer survivors". | | | | | | | (Original Date : 19 – 24 July 2020) |
| **Almeida, S. et al CHAMP** | Annals of Oncology | Conference Abstract | The psychological impact of the COVID-19 pandemic on patients with early breast cancer | May 2021 | NA | European Society for Medical Oncology | Researchers, Clinicians | NA | Published | https://doi.org/10.1016/j.annonc.2021.03.146 |
| **FORTH** | International Conference on Biomedical and Health Informatics | Presentation | Sensor-based behavioral informatics in support of Health Management and Care | 27-30 July 2021 | Virtual | | Biomedical Researchers, Oncologists, Clinical researchers | >1000 | Completed | |
| **FORTH** | IEEE, International Conference on Data Engineering | Presentation | Semantic Patches for Coupled Database-Application Evolution | 19-22 April 2021 | Virtual (China) | | researchers, practitioners, developers | >1000 | Completed | |
| **FORTH** | Scientific Journal: Computers in Biology and Medicine | Conference Paper | A machine learning-based pipeline for modelling medical, socio-demographic, lifestyle and self-reported psychological traits as predictors of mental health outcomes after breast cancer diagnosis: An initial effort to define resilience effects | April, 2021 | NA | NA | Biomedical Researchers, Oncologists, Clinical researchers | NA | Completed | |
| **FORTH** | **PETRA, 2021** | Conference paper acceptance | Prediction of COVID-19 infection based on symptoms and social life using machine learning techniques | June, 2021 | NA | NA | Biomedical Researchers | NA | Completed | https://dl.acm.org/doi/fullHtml/10.1145/3453892.3462696 |
| **FORTH** | **43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society** | Conference paper acceptance | Prediction of Poor Mental Health Following Breast Cancer Diagnosis Using Random Forests | November, 2021 | NA | NA | Biomedical Researchers, Oncologists, Clinical researchers | >1000 | Completed | |
| **Georgios Stamatakos (ICSS)** | "6 th Scientific Forum: Biosciences, Innovation, Technology, and Cancer: from Prevention to Therapy", | Presentation Invitation | Bounce Project Presentation: "THE BOUNCE Project: Predicting Effective Adaptation to Breast Cancer to Help Women to bounce back" | 15-17 October, 2021 | Athens, Greek | http://gk.gr/en/portfolio/biosciences-innovation-technology-cancer-from-prevention-to-therapy/ | Medical Doctors, Engineers, Basic Scientists, Psychologists | >1000 | Completed | |
| **Panagiotis Simos (FORTH)** | Health IT Conference | Presentation | Predicting Effective Adaptation to | 15 - 16 June, 2021 | Virtual | | Biomedical Researchers, | >1000 | Completed | |

| | | | Breast Cancer to Help Women to BOUNCE Back | | | | Oncologists, Clinical researchers | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Eugenia Mylona FORTH** | International Conference on Biomedical and Health Informatics (BHI'21) jointly organised with the 17th IEEE-EMBS International Conference on wearable and implantable body sensor networks (BSN'21) | Presentation | Dynamic patterns of change in mental health following breast cancer diagnosis: A trajectory-based unsupervised clustering approach | 27 - 30 July, 2021 | Virtual | https://www.bhi-bsn-2021.org/?page_id=2336 | Biomedical engineers, health informatics | >1000 | Completed | |
| **Evangelos Karademas FORTH** | 35th Annual Conference of the European Health Psychology Society | Oral Presentation | The impact of cultural and health-care system differences on psychological adaptation to breast cancer. | 23rd – 27th August, 2021 | Virtual | | Psychologists, Health Psychologists | >500 | Completed | |
| **Ketti Mazzoco IEO** | IPOS Congress | Symposium | Predicting effective adaptation to breast cancer to help women to bounce back: The role of fear of recurrence and personal characteristics in the process of coping SIMPOSIO IEO | 26-29 May, 2021 | Virtual | | Oncologists, nurses, psychiatrists, psychooncologists, clinical researchers | > 1000 | Completed | |
| **Chiara Marzorati** | Congress of Italian Psychology Association | Communication | Communication to the Congress of Italian Psychology Association | 6-9 September 2021. | Lecce, Italy | Italian Psychology Association | Psychologists | | Completed | |
| **Nuutinen, Mikko (NHG)** | 15th International Joint Conference on Biomedical Engineering Systems and Technologies | 8 pages conference article and conference presentation (20 minutes) | "Impact of machine learning assistance on the quality of life prediction for breast cancer patients." | 2 - 11 February, 2022 | Virtual | HealthInf BIOSTEC | Researchers and practitioners interested in the specification, design, development and application of information and communication technologies (ICT) to healthcare and medicine | | Completed | https://healthinf.scitevents.org/?y=2022 |
| **Dimitris Fotiadis (FORTH)** | 44th Annual International Conference of IEE and IEEE Engineering in Medicine and Biology Society (EMBC'22) | Presentation | Trajectories and Predictors of Depression after Breast Cancer Diagnosis: one year longitudinal study | 11-15 July 2022 | Glasgow | IEE and IEEE Engineering in Medicine and Biology Society | - Biomedical engineers, health informatics | >1000 | Accepted | |

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| **Ketti Mazzoco(IEO)** | IPOS World Congress | Presentation | "Family resilience: early predictors and long term mental health outcomes in breast cancer patients " | 29 August – 1 September,2022 | Toronto | International Psychooncology Society | Psychologists, Psyhcooncologists | >1000 | Submitted | |
| **ICCS in collaboration with several other BOUNCE partners** | Virtual Physiological Human Conference 2022 | Presentation | Artificial intelligence based in silico models for the prediction of resilience related psychological, psychiatric and functional trajectories in women with early breast cancer" | 6-9 September 2022 | Porto | Virtual Physiological Human Conference | - Biomedical engineers, health informatics | >1000 | Submitted | |
| **Verde, A. S. C. et al. CHAMP** | **European Congress of Radiology (ECR)** | Oral Presentation | Detection of regional white-matter cingulum alterations in breast cancer patients | 13-17 July, 2022 | Vienna | >1000 | Radiologists, Researchers | | Accepted | |

*Table 1: Participation in third party events*

### 3.1.3. Publishing activities

A major part of the project involves research that is carried out by researchers; therefore, during this fourth year the Bounce partners submitted and published several scientific articles in peer reviewed journals related with preliminary data from clinical pilot and the development of the Bounce tool.

| Partner | Activity Title | Type of activity | Description (if applicable) | Date | Organiser | Target audience | Status | Notes |
|---|---|---|---|---|---|---|---|---|
| Kourou et al. FORTH & Bounce partners | Comput Biol Med | Journal publication | "A machine learning-based pipeline for modeling medical, socio-demographic, lifestyle and self-reported psychological traits as predictors of mental health outcomes after breast cancer diagnosis: An initial effort to define resilience effects." | April, 2021 | Comput Biol Med Journal | Biomedical Researchers, Oncologists, Clinical researchers | Completed (Published) | DOI: 10.1016/j.compbiomed.2021.104266 |
| Evangelos Karademas (FORTH) and BOUNCE consortium | Scientific Journal: Psychooncology | Paper | "Cognitive, emotional, and behavioral mediators of the impact of coping self-efficacy on adaptation to breast cancer: An international prospective study" | May, 2021 | NA | NA | Completed (Published) | DOI: 10.1002/pon.5730 |
| FORTH | PETRA, 2021 | Conference paper acceptance | "Prediction of COVID-19 infection based on symptoms and social life using machine learning techniques" | June, 2021 | NA | Biomedical Researchers | Completed (Published) | https://dl.acm.org/doi/fullHtml/10.1145/3453892.3462696 |
| Karademas et al. FORTH & Bounce partners | Psychology & Health | Journal publication | "The mutual determination of self-efficacy to cope with cancer and cancer-related coping over time: a prospective study in women with breast cancer" | February, 2022 | Psychology & Health Journal | Researchers, Clinicians | Completed (Published) | doi: 10.1080/08870446.2022.2038157 |
| Poikonen-Saksela, P. et al. HUS & ICSS | Scientific reports | Journal publication | "A graphical LASSO analysis of global quality of life, sub scales of the EORTC QLQ-C30 instrument and depression in early breast cancer" | February, 2022 | Nature Scientific reports | Researchers, Clinicians | Completed (Published) | https://doi.org/10.1038/s41598-022-06138-2 |
| Raquel Lemos et al. CHAMP | Frontiers in Psychology | Journal Publication | "Cross-Cultural Adaptation and Psychometric Evaluation of the Perceived Ability to Cope with Trauma (PACT) Scale in Portuguese Patients with Breast Cancer" | February 2022 | Frontiers in Psychology | Researchers, Clinicians | Completed (Published) | DOI: 10.3389/fpsyg.2022.800285 |
| BOUNCE Consortium | Journal of Medical Internet Research (JMIR) | Journal Publication | "Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back: study protocol for a multicenter clinical pilot" | April 2022 | JMIR publications | Researchers, Clinicians | Accepted | |
| Karademas et al. FORTH & Bounce partners | Journal of Clinical Psychology in Medical Settings | Journal Publication | "The Interplay Between Trait Resilience and Self-efficacy to | April 2022 | Journal of Clinical Psychology in Medical Settings | Researchers, Clinicians | Accepted | |

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|---|---|---|---|---|---|---|---|---|
| | | | Cope with Cancer in Patients with Breast Cancer: An international Study " | | | | | |
| **Verde, A. S. C. et al.** **CHAMP** | **European Congress of Radiology (ECR) 2021 Book of Abstracts. Insights into Imaging 12** | Conference Abstract | "Assessment of subcortical brain volume changes in breast cancer patients undergoing treatment: A pilot study" | | European Congress of Radiology (ECR) | Researchers, Clinicians | **Completed (Published)** | |
| **Leena Vehmanen et al.** **HUS & Bounce partners** | The Breast Journal | Journal Publication | "Associations between physical exercise, quality of life, psychological symptoms and treatment side-effects in early breast cancer" | April 2022 | The Breast Journal | Researchers, Clinicians | **Submitted** | |
| **Ilan Roziner et al.** **HUJI & Bounce partners** | Stress & Health | Short Communication | "Psychological and somatic symptoms among breast cancer patients in four European countries. A cross-lagged panel model" | February 2022 | Stress & Health Journal | Researchers, Clinicians | **Submitted** | |
| **Ruth Pat-Horenczyk et al.** **HUJI & Bounce partners** | Social Science and Medicine | Journal Publication | "The moderating role of coping flexibility in reports of somatic symptoms among early breast cancer patients" | January 2022 | Social Science and Medicine Journal | Researchers, Clinicians | **Submitted** | |
| **Mikko Nuutinen et al.** **NHG & Bounce partners** | Artificial Intelligence in Medicine | Journal Publication | "Aid of machine learning algorithm can improve clinical predictions of patient quality of life during breast cancer treatments" | March 2022 | Artificial Intelligence in Medicine | Researchers, Clinicians | **Submitted** | |
| **Kourou K. et al** **FORTH & Bounce partners** | Breast Cancer Research and Treatment | Journal Publication | "Determining personalized psychosocial, behavioral, and biological risk factors for one-year mental health deterioration using adaptive learning algorithms: A multicenter breast cancer prospective study" | April 2022 | Breast Cancer Research and Treatment | Researchers, Clinicians | **Submitted** | |
| **Karademas et al.** **FORTH & Bounce partners** | Health Psychology | Journal Publication | "Types of Change Over Time in Self-efficacy to Cope with Breast Cancer and their Relations to Patient Well-being". | April 2022 | Health Psychology | Researchers, Clinicians | **Submitted** | |

*Table 2: Publishing activities*

### 3.1.4. Additional planned dissemination activities

Each partner involved in the BOUNCE project has the capacity to promote the project goals and concepts, and will do so at any potential opportunity, attending events, meetings, promoting the project on their website, via their own social media channels, engaging in activities with other projects.

Although the project ends in April 2022, partners will continue to disseminate the results and the tool from BOUNCE. As so, there are already planned activities for the upcoming months, namely:

| Partner | Activity Title | Type of activity | Description (if aplicable) | Date | Location | Organiser | Target audience | Attendance | Status | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Paula Poikonen-Saksela (HUS) | HUS CCC Scientific meeting | Presentation | BOUNCE final results | 29th April 2022 | HUS CCC | HUS | Oncologists, Psychiatrists, Phycologists, researchers, nurses | 60 | Planned | |
| Dimitris Fotiadis (FORTH) | 44th Annual International Conference of IEE and IEEE Engineering in Medicine and Biology Society (EMBC'22) | Presentation | Trajectories and Predictors of Depression after Breast Cancer Diagnosis: one year longitudinal study | 11-15 July 2022 | Glasgow | IEE and IEEE Engineering in Medicine and Biology Society | - Biomedical engineers, health informatics | >1000 | Accepted | |
| Ketti Mazzoco(IEO) | IPOS World Congress | Presentation | "Family resilience: early predictors and long term mental health outcomes in breast cancer patients" | 29 August – 1 September,2022 | Toronto | International Psychooncology Society | Psychologists, Psyhcooncologists | >1000 | Submitted | |
| ICCS in collaboration with several other BOUNCE partners | Virtual Physiological Human Conference 2022 | Presentation | Artificial intelligence based in silico models for the prediction of resilience related psychological, psychiatric and functional trajectories in women with early breast cancer" | 6-9 September 2022 | Porto | Virtual Physiological Human Conference | - Biomedical engineers, health informatics | >1000 | Submitted | |
| Verde, A. S. C. et al. CHAMP | European Congress of Radiology (ECR) | Oral Presentation | Detection of regional white-matter cingulum alterations in breast cancer patients | 13-17 July, 2022 | Vienna | >1000 | Radiologists, Researchers | >1000 | Accepted | |
| Paula Poikonen-Saksela | Nordic congress on breast cancer | Oral presentation | Predicting effective adaptation to breast cancer to help women to BOUNCE back-results from the BOUNCE project | 19 Sept 2022 | Helsinki | Europadonna | Europadonna members | 150 | Planned | |

*Table 2: Future participation third party events*

# 4. BOUNCE's Dissemination Tools

Although the COVID-19 pandemic is taking a toll on dissemination activities of the study, the BOUNCE consortium is making efforts to expand media outreach mainly by reviewing and updating the website, drafting the next newsletter and writing new social media posts

## 4.1. BOUNCE online dissemination

### 4.1.1. BOUNCE Website

The BOUNCE website (https://www.bounce-project.eu/) has been created since the first months of the projects, in order to present BOUNCE to the public: achievements, results and updates. It has been designed to be user friendly and it directs the public to take action in the different social media channels, which will be used to promote the project.

The objectives of the website are:

- To publish any new information on the project such as meetings, events, publications, deliverables, results, and achievements.

- To encourage stakeholder to take part in the BOUNCE stakeholder community.

Because this is such an important communication channel, the project site is constantly updated with amendments/additions as well as with the latest news regarding the project and related topics in order to promote the project's concept and objectives.

Particularly, all public deliverables have been posted and are accessible for download as soon as they are accepted by the European Commission (https://www.bounce-project.eu/downloads/deliverables/) while publications produced and presented by the consortium are also listed (https://www.bounce-project.eu/publications/ )

*Figure 1: Project's Website (Homepage)*

## 4.1.2. BOUNCE in Social Media

BOUNCE uses social media tools in order to create the BOUNCE stakeholder's community. Accounts have been created in several social media networks and are regularly updated: Facebook (https://www.facebook.com/BounceProject-168419160589203/), Twitter (https://twitter.com/BounceProjectEU) and LinkedIn (https://www.linkedin.com/groups/12100133/), in order to promote the project achievements as well as the project website and attract stakeholders. The main objectives for the social media presence are:

- Attracting members to BOUNCE community

- Encouraging discussions and interest in the BOUNCE project the main areas of research

- Enhancing the project visibility throughout social media

- Increase awareness to the project achievements and results

- Promoting events such as the final conference

- Promote intercultural sharing of breast cancer survivors (e.g. https://www.lilith.org/articles/across-the-barrier/)

BOUNCE consortium is disseminating the project's results in social media according to the communication strategy outlined in Deliverable 8.1. Posts are regularly shared through

all social media accounts. FORTH is responsible for posting in the social media accounts, but all partners are asked to send news/achievements/events or any other interesting posts through social media and use their own social media channels to promote and repost news.

The metrics / analytics for the period 01/09/2021– 10/04/2022 are following:

| Website | Facebook |
|---------|----------|
| | **37 new postings** |
| • 2,263 users<br>• 2,754 sessions<br>• 1:18' avg.visit duration<br>• 4,917 page views<br>• 1,22 actions per one visit | • 80 page likes<br>• 1,053 page reach<br>• 343 engagement<br>• 86 followers<br>• 224 reactions |

*Figure 2: Website impact*              *Figure 3: Facebook impact*

| Twitter | LinkedIn |
|---|---|

**32 new tweets**

**34 new posts**

- **84** followers
- **32** tweets
- **5.261** visits
- **5.1K** impressions

- **67 Group** members
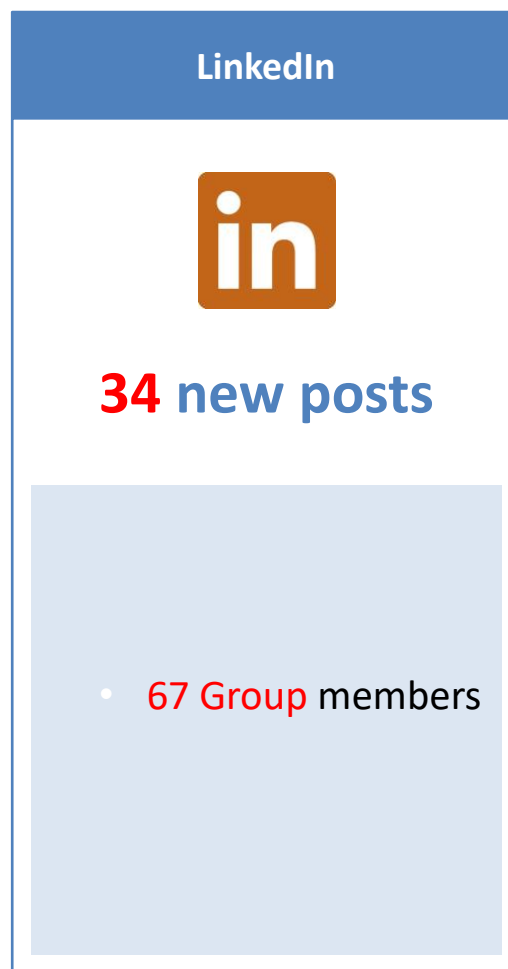
*Figure 4: Twitter impact*            *Figure 5: Linkedin impact*

### 4.1.3.    Newsletters

News and information are published in the form of a short newsletter that is addressed to the stakeholder community. This is distributed via the social network channels and the stakeholder community and by all partners. At least five newsletters are planned during the project, approximately one every six months, after the first year of the project.

Newsletter ISSUE #4 is featuring the following articles, and was published on February 2021 (Figure 6):

- The BOUNCE project at a glance: Meeting the challenge of a multinational prospective study on resilience by Dr. Paula Poikonen-Saksela (HUS)
- BOUNCE and the Forgotten Generation: Adult Children of mothers with breast cancer by the HUJI Dissemination team

- The HUS patient support digital platform becomes fully operational  by Paula Poikonen-Saksela (HUS)

- Psychosocial profiles of resilience in the era of personalized medicine By Giorgos Manikis, Konstantina Kourou, Evangelos Karademas (FORTH)

- Investigating the relationship between the COVID-19 pandemic and related parameters, and breast cancer patients' Psychological and Quality of Life outcomes by Diana Frasquilho, Sílvia Almeida, Berta Sousa and Albino J. Oliveira-Maia (CHAMP)

- Future events

- Social Media


Newsletter ISSUE #5 is featuring the following articles, and was published on September 2021 (Figure 7):

- Is resilience of women with breast cancer predictable : How can computational models help health professionals optimize psychological interventions? By Konstantina Kourou and Giorgos Manikis (FORTH)

- How the BOUNCE project promotes knowledge about adaptation to breast cancer By Evangelos Karademas (FORTH)

- Personal experiences with breast cancer: family dynamics By Chariklia Tziraki

- Recent Events

- Future Events/Social Media

## BOUNCE

Predicting Effective Adaptation to Breast Cancer to Help Women to **BOUNCE** Back

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**BOUNCE NEWSLETTER**

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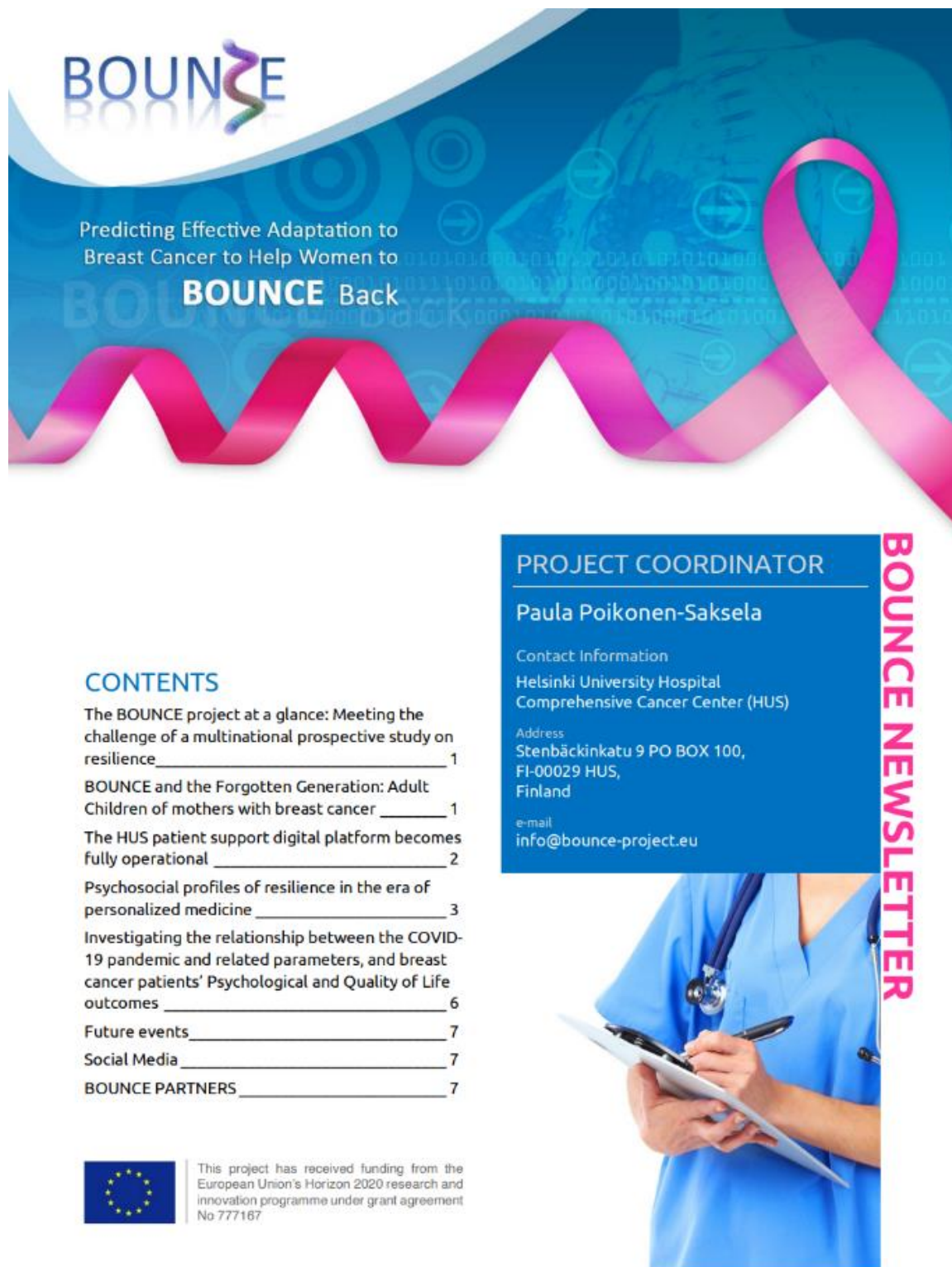
Figure 6: BOUNCE Newsletter ISSUE #4

Newsletter ISSUE #6 is featuring the following articles, and was published in the beginning of February (Figure 8):

- BOUNCE machine learning models predict one-year resilience outcomes By Konstantina Kourou, Panagiotis Simos, Evangelos Karademas & Giorgos Manikis (FORTH)

- Facing the continuous fear of cancer recurrence By Gabi Bentley, Osnat Zamir, Shlomit Perry, Rawan Dahabre & Ruth Pat-Horenczyk (HUJI)

- A pilot study of a digital exercise path at the HUS center Dr. Paula Poikonen-Saksela (HUS)

- The role of food in maintaining health in breast cancer survivors By Chariklia Tziraki (HUJI)

- Events / Social Media

BOUNCE

Predicting Effective Adaptation to
Breast Cancer to Help Women to
**BOUNCE** Back

BOUNCE NEWSLETTER

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Figure 7: BOUNCE Newsletter ISSUE #5

# 5. Conclusions

In conclusion this deliverable constitutes the last report on the project BOUNCE Dissemination & Scientific Workshop Activities.

During this reporting time, the consortium gathered efforts to minimize the effects of COVID-19 on dissemination activities, and so, participate in several third-party events that were mainly held online. The dissemination activities were also intensified in this report as a result of the need to disseminate preliminary results from the clinical pilot and sub studies related to this one.

**BOUNCE**

Predicting Effective Adaptation to Breast Cancer to Help Women to **BOUNCE** Back

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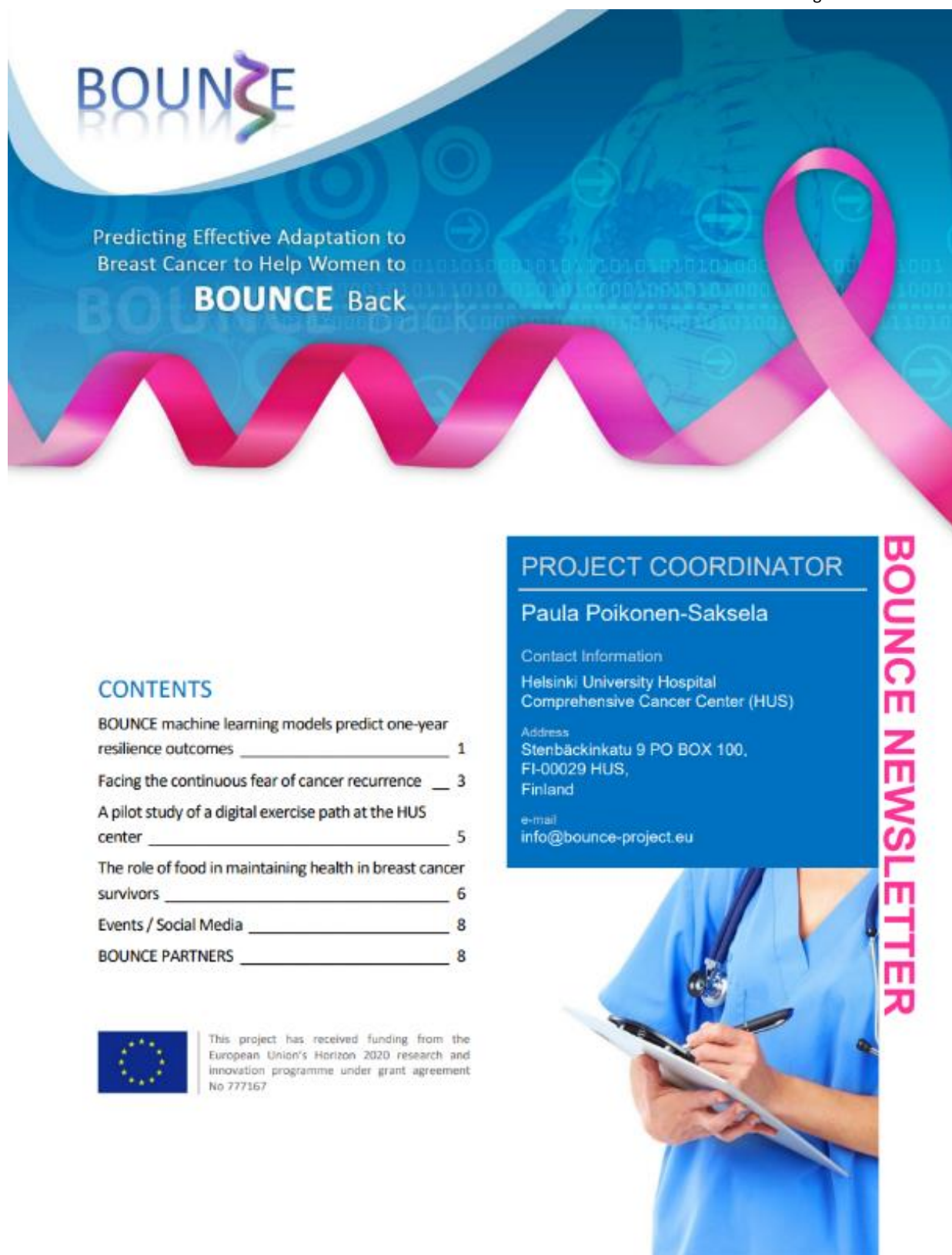
**BOUNCE NEWSLETTER**

Figure 8: BOUNCE Newsletter ISSUE #6

# Appendix 1

| Partner | Activity Title | Type of activity | Description (if aplicable) | Date | Location | Organiser | Target audience | Attendance | Status | Impact Assessment | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Stavros Krasadakis, Singular Logic** | **4th Scientific Forum "Bioscience and cancer: From prevention to therapy"** | Talk in a Scientific Forum | Presentation of a short overview of the BOUNCE project during an invited talk, under the session AI and oncology. | 13 – 14 October 2017 | Athens, Greece | HYGEIA Hospital, Athens, Greece | BOUNCE stakeholders (oncologists, nurses, patients, patient organizations, insurance companies) | 80 | **Completed** | Inform the care providers of some of the largest Greek hospitals about the BOUNCE approach and expected results in support of dissemination and future exploitation. | |
| **Paula Poikonen, HUS** | **Interview in Mediuutiset Newspaper** | Newspaper Interview | | 1 December 2017 | NA | | | NA | **Completed** | Inform healthcare professionals about BOUNCE at the start of the project in the biggest magazine for physicians in Finland. | |
| **HUS** | **Coordinators Press Release** | Press Release | International Press release | 21 December 2017 | NA | HUS | | | **Completed** | Inform the media about funded proposal at start of the project | https://www.businesswire.com/news/home/20171220006243/en |
| **Georgios Stamatakos - ICCS, Norbert Graf, and the CHIC Project Consortium** | **2018 IEEE International Conference on Biomedical and Health Informatics (jointly with) Body Sensor Networks** | Paper presentation | Presentation in Special Session # 6: Biomedical Informatics across the Cancer Continuum: "Clinically Specified Cancer Multiscale Hyper modelling for in Silico Oncology: The Transatlantic CHIC Project and Beyond". Conference in the | 4-7 March 2018 | Las Vegas, USA | IEEE (Institute of Electrical and Electronic Engineers) | Engineers, Physical scientists, clinical doctors | ~600 | **Completed** | Inform the biomedical informatics and healthcare community about BOUNCE at the start of the project. Special emphasis was put on the importance of Artificial Intelligence in modelling Quality of Life and Resilience. | https://embs.papercept.net/conferences/conferences/BHI18/program/BHI18_ContentListWeb_4.html |

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| | | | area of mHealth, health analytics and wearable computers. | | | | | | | | |
| **Paula Poikonen-Saksela, HUS** | **HUS e Health forum** | Communications Oral/Poster in national Meeting | Presentation for Health care professionals and researchers of HUS about BOUNCE | 14/03/2018 | Helsinki, Finland | HUS | eHealth researchers in Finland | 50 + web | **Completed** | Present the project for eHealth research forum of HUS to raise early interest and find possible collaborators. | |
| **Singular Logic** | **Singular Logic Press Release** | Press Release | A press release informing the public about the goals of the BOUNCE project. The press release has appeared in different sites, including the Greek company of pharmaceutical management and more. | March 2018 | NA | Singular Logic | General public | NA | **Completed** | Inform the media about funded proposal at start of the project | https://portal.singularlogic.eu/article/16905/i-singularlogic-symmetehei-sti-diethni-koinopraxia-bounce-me-stoho-tin-enishysi-tis |
| **FORTH** | **ICDE 2018 - International Conference on Data Engineering** | Paper presentation | Paper presentation: Giannis Agathangelos, Georgia Troullinou, Haridimos Kondylakis, Kostas Stefanidis, Dimitris Plexousakis:RDF Query Answering Using Apache Spark: Review and Assessment. ICDE 2018: 54-59 | 16-19 April 2018 | Paris, France | IEEE Computer Society | Data Management Researchers | 500 | **Completed** | Inform the research community about existing approaches for query answering approaches using apache spark | |

| FORTH | ACM Petra 2018 - 11th PErvasive Technolgies Related to Assistive Environments Conference | Paper presentation | Paper presentation: Michail Giannoulis, Haridimos Kondylakis, Emmanouil I. Marakakis:COSMOS: A Web-Based, Collaborative Knowledge System Using Ontologies and Managing Uncertainty. PETRA 2018: 441-448 | 25-29 June 2018 | Corfu, Greece | ACM | Data Management Researchers | 200 | Completed | Inform the research community about a developed approach for collaborative knowledge management using ontologies | |
| FORTH | VLDB 2018 - 44th International Conference on Very Large Data Bases 2018 | Paper presentation on conference | Paper presentation: Haridimos Kondylakis, Niv Dayan, Kostas Zoumpatianos, Themis Palpanas:Coconut: A Scalable Bottom-Up Approach for Building Data Series Indexes. PVLDB 11(6): 677-690 (2018) | 27-31 August 2018 | Rio de Janeiro, Brazil | VLDB Endowment Inc. | Data Management Researchers | 1000 | Completed | Inform the research community about a unique solution for managing data series data | Top conference in Data Management |
| NHG and HUS | Scientifical Seminar of Comprehensive Cancer Center | Workshop | National dissemination event - meeting with selected stakeholder groups | 13 Septempber 2018 | Helsinki, Finland | HUS + NHG | BOUNCE stakeholders (oncologists, nurses, patients, patient organizations, insurance companies) | 27 | Completed | Inform patients, healthcare professionals, and patient organizations about BOUNCE and consult them about existing interventions and support for BC patients and what could be done better. | |
| Georgios Stamatakos - ICCS, and Norbert Graf, for the CHIC Consortium | Proceedings of the V Virtual Physiological Human Conference - VPH2018 | Invited talk on a Conference | "In Silico Oncology: Building and validating hypermodels and Oncosimulators as clinical decision support systems in the framework of the EU-US CHIC project" | 5-7 September 2018 | Zaragoza, Spain | Virtual Physiological Human Institute | Physical scientists, engineers, clinical doctors | ~800 | Completed | Inform the Virtual Physiological Human (VPH) society on BOUNCE and the importance of combining mechanistic models with Artificial Intelligence methods in order | http://vph-conference.org/ http://vph-conference.org/program/invited/ |

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| **Gianna Tsakou, Singular Logic** | **Singular Logic Meeting** | One-on-one meeting (e.g. policy makers) | Presentation of the project's goals and results up to that moment, during a 1-hour telephone meeting. | 3 October 2018 | NA | Singular Logic | Director of eHealth department of Gradiant (Gradiant is the 3rd ICT Technology Center in Spain and focuses on technological development and knowledge transfer to industry). | 1 person | **Completed** | Inform the research community about the BOUNCE technological approach and results and create synergy with one of the largest research centers in Spain | |
| **Georgios Stamatakos - ICCS** | **1st Cancer Research Workshop** | Invited talk on a Workshop | "In Silico Oncology: Translating Oncosimulators to the Clinic," | 3-5 October, 2018 | Limassol, Cyprus | Cyprus University of Technology | Clinical doctors, physical scientists, engineers | | 50 | **Completed** | Inform the clinical community and in particular the radiation therapy community on BOUNCE and the need of exploiting artificial intelligence in order to model long term side-effects of treatment and quality of life. | https://www.cut.ac.cy/news/article/?languageId=100&amp;contentId=138210 |
| **Paula Poikonen-Saksela, HUS** | **Scientific meeting HUS Comprehensive Cancer Center** | Oral Presentation | Presentation about the project objectives and clinical aspects | 10 October 2018 | | | | | 30 | | To inform clinicians and nurses at HUS Comprehensive Cancer Center about the project just before the pilot start to increase knowledge and boost the recruitment process | |
| **NHG** | **Stakeholder interviews in WP1, D1.1** | Interviews | Stakeholder interviews to define the BOUNCE value | Spring 2018 | Finland, Italy, Israel | NHG | BOUNCE stakeholders (oncologists, nurses, patients, patient organizations, insurance companies) | | 18 | **Completed** | Better understanding for the consortium of the value stakeholders can get from BOUNCE | |

| Gianna Tsakou, Singular Logic | SHAFE (Smart Healthy Age-Friendly Environments) framing paper and Joint Statement presentation | Presentation to the Coordinators of the SHAFE (Smart Healthy Age-Friendly Environments) thematic network: i.e. to Caritas Coimbra and AFEdemy and contributed to the SHAFE framing paper and Joint Statement using the experience gained so far in the BOUNCE project. | Presentation of the project's goals | October 2018 | | European Commission, Caritas Coimbra and AFEdemy | European Commission, SHAFE (Smart Healthy Age-Friendly Environments) thematic network participants, other interested stakeholders related to healthy and independent ageing | | Completed | Inform the research community related to elderly care about the BOUNCE approach and expected results, raise early interest and find possible collaborators | |
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| Berta Sousa, CHAMP | National Oncology Congress | Oral Presentation | Thematic session - "Care for oncology patients beyond oncology" | 22-24 November 2018 | Coimbra, Portugal | Portuguese Oncology Society | | | Completed | Medical Oncologists awareness about cognitive function issues during chemotherapy, and presentation of Bounce to the medical oncology community as a prospective assessment of several concepts of adaptation to the process of breast cancer treatment in the early stage. | |
| Paula Poikonen-Saksela, HUS | Finnish oncological nurses annual seminar | Hosting seminar/conference | Presentation about the project for oncological nurses at their annual national meeting | March 3rd 2019 | Helsinki, Finland | | Oncological nurses | 50 | Completed | Inform nurses nationally about the project | |
| FORTH | EDBT 2019 Tutorial & Paper Presentation | Tutorial & Paper Presentation | Tutorial on summarization techniques used for data partition and query answering within BOUNCE and on techniques for recording the changes between schema versions. | 26-29 March 2019 | Lisbon, Portugal | | Big Data Management ICT | 200 | Completed | Inform the research community about solutions managing big data using ontologies through summarization. | 2 submissions by FORTH accepted |

| FORTH | Poster Presentation - "A Reference Architecture for Predicting Resilience Levels of Women with Breast Cancer" at EEE-EMBS International Conference on Biomedical and Health Informatics (BHI 2019) | Communication Oral/Poster in International Meeting | Presentation of the overall BOUNCE system architecture which contributes to clinical outcomes and patient well-being by taking into consideration biological, social, and lifestyle factors for resilience prediction in women with breast cancer. The proposed framework integrates several building blocks organized in three tiers: (i) the applications tier, (ii) the semantic tier and (iii) the security tier. | May 19-22, 2019 | Dorin Forum, University of Illinois at Chicago, Chicago, IL, USA | Engineering in Medicine and Biology Society | Bioinformatics; Imaging Informatics; Biomedical Signal Processing Informatics; Sensor Informatics; Behavioral Informatics; Big Data Analytics and Machine Learning; Clinical Informatics; Public Health Informatics; Precision Medicine Informatics; Disease Oriented Informatics. | | Completed | | |
| FORTH | Oral presentation at the 19th annual IEEE International Conference on Bioinformatics and Bioengineering (BIBE 2019). Title of the submitted full paper "Computational modeling of psychological resilience trajectories during breast cancer treatment" | Communication Oral/Poster in International Meeting | This paper gives an overview of the project targets and on the algorithmic methods focusing on modeling the psychological resilience trajectories during breast cancer treatment. | May 19-22, 2020 | Dorin Forum, University of Illinois at Chicago, Chicago, IL, USA | Engineering in Medicine and Biology Society | Bioinformatics; Imaging Informatics; Biomedical Signal Processing Informatics; Sensor Informatics; Behavioral Informatics; Big Data Analytics and Machine Learning; Clinical Informatics; Public Health Informatics; Precision Medicine Informatics; Disease Oriented Informatics. | | Completed | | |

| FORTH | International Conference on Information and Communication Technologies for Ageing Well and e-Health (ICT4AWE) | Conference | Presentation of the paper ShinyAnonymizer: A Tool for Anonymizing Health Data. Goal: to inform the research community about a tool developed for anonymization of project data | 2-4 May, 2019 | Heraklion | | eHealth researchers | 300 | **Completed** | - | |
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| CHAMP | **Mama Help Session "Resilience: What does it take to better cope with breast cancer? What factors may determine better adaptation to the illness?** | Oral Presentation | MamaHelp is a non-profit institution that organizes free and open seminars with various professionals on the most varied topics related to the subject of breast cancer. This specific session aims to raise awareness to the topic of resilience and to inform breast cancer patients and their family members and friends and civil society about BOUNCE, its aim and methods. | 22 May 2019 | Lisbon, Portugal | Mama Help | Breast Cancer Patients, family members and friends, and civil society. | 100 | **Completed** | | |
| Ketti Mazzocco, IEO | **Presentation on "Resilience of the cancer patient in the P5 era" at a National Workshop.** | Oral Presentation | A National workshop on the "Humanization of care in Oncology: The role of Psycho-oncology on patient empowerment", thought for health professionals. | 22 May 2019 | Padova, Italy | Oncological Institute of Veneto, supported by the Italian Society of Psycho-Oncology (SIPO) | Psychologists, nurses, physicians, biologists, technicians | Max 90 | **Completed** | - | |
| FORTH | **CMBS 2019 - International Symposium on Computer Based Medical Systems** | Symposium/special session | Special session in conference, named Tech3cancer with other related cancer-focused EU projects. Goal: to present the current status of | 5-7 June 2019 | Cordoba, Spain | IEEE | eHealth researchers, other EU projects | 300 | **Completed** | - | FORTH's paper was also accepted https://ξwww.tech4cancer.com/ |

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| | | | the project and explore collaboration opportunities with other EU projects on cancer | | | | | | | |
| HUS & NHG | BOUNCE's Opening Dissemination Event | Dissemination Event | | 10-11 June 2019 | Helsinki, Finland | HUS | | | Under preparation | - |
| FORTH | SIGMOD 2019 - International Conference on Management of Data | Conference | Second best conference in data management. Goal: to present the project solution for management of big data series data | June 30 - July 5, 2019 | Amsterdam, 2019 | ACM | Data Management Researchers | 1000 | Completed | - |
| Suggested by Berta Sousa, CHAMP | WPC 2019 - World Psychiatry Congress | Hosting Symposium/special session/workshop | Proposed Symposium - "How will I cope with cancer?": Innovative interdisciplinary approaches to assess resilience in breast cancer survivors to allow efficient interventions and recovery. | 21-24 August 2019 | Lisbon, 2019 | WPA - World Psychiatry Association | | | Submitted | - |
| HUJI | Second Dissemination Event: Cross Cultural Perspective on Resilience in Breast Cancer | Dissemination event | Event for dissemination and discussion of project's specific topics of interest, inform and engage interested parties through provision of general information about the project and its outcomes | 18 September 2019 | School of Social Work  Hebrew University of Jerusalem, Mount Scopus, Jerusalem | BOUNCE Consortium and Hebrew University of Jerusalem | International Health and social care professionals, breast cancer patients, patient organizations, researchers, media. | | Completed | |
| Suggested by Gianna Tsakou, Singular Logic | 2019's Annual Conference of Partners of the European Innovation Partnership on Active and Health | Communication Oral/Poster in International Meeting | | 23 September 2019 | | EIP on AHA | | | Planned | It was not completed |

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| | Ageing (EIP on AHA) | | | | | | | | | | |
| **FORTH** | **15th Mediterranean Conference on Medical and Biological Engineering and Computing (MEDICON 2019)** | Communication Oral/Poster in International Meeting | Presentation of the paper "Computational Models for Predicting Resilience Levels of Women with Breast Cancer" to present the computational models to be developed within the project related to resilience prediction | 26-28 September 2019 | Coimbra, Portugal | COIMBRA UNIVERSIDADE, PORTUGUESE SOCIETY OF BIOMEDICAL ENGINEERING | eHealth researchers | | 400 | **Completed** | |
| **BOUNCE Consortium** | **BOUNCE Newsletter ISSUE #1** | Press Release | 1st BOUNCE Newsletter, includes: Predicting Effective Adaptation To Breast Cancer To Help Women To BOUNCE Back (By Dr Paula Poikonen-Saksela) Defining Resilience (By Prof. Ruth Pat-Horenczyk) Implementing A Prospective Clinical Study To Model Resilience Growth (By Dr Kettie Mazzocco) Resilience Monitoring Through An Electronic Platform The Adapted Noona Tool (Juha Salonen) Using Adaptive Algorithms To Achieve Individualized Models Of Resilience (By Prof. P. Simos and E. Karademas)" | 7 October 2019 | | Bounce website and email | General public, health and social care professionals, breast cancer patients, patient organizations, researchers, media. | | | **Completed** | number of downloads/visits | https://www.bounce-project.eu/downloads/newsletters/ |

| SingularLogic | News item for the social media/blog | Other | the article informs about the 1st release of the BOUNCE platform integrating all components available so far | October 2019 | | Bounce website and social media | General public, health and social care professionals, breast cancer patients, patient organizations, researchers, media. | | Completed | number of downloads/visits | https://www.bounce-project.eu/news/bounce-integrated-platform-first-release/ |
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| FORTH | BIBE 2019 - 19th International Conference on BioInformatics and BioEngineering | Symposium/special session | Forth submitted the organization of a special session for the BOUNCE project. Goal: to present project results and identify potential collaboration opportunities. | 28-30 October 2019 | Athens, Greece | FORTH | eHealth researchers, other EU projects | 300 | Completed | - | Deadlines for submission Workshops and Special sessions Papers - June 15th |
| HUJI | Oral presentation BOUNCE: Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back | Communications Oral/Poster in national Meeting | Oral presentation BOUNCE: Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back at the faculty seminar of the School of Social Work of the Hebrew University of Jerusalem. | 3 November 2019 | School of Social Work Hebrew University of Jerusalem, Mount Scopus, Jerusalem | School of Social Work Hebrew University of Jerusalem, Mount Scopus, Jerusalem | faculty members including researchers, clinical lecturers, practitioners in the field of social work and psychology. | 30 | Completed | There were very positive comments and specific questions about the challenges in international collaboration, especially with the modeling experts, and about the future translation of the results into evidence-based interventions. | |
| SingularLogic | News item for the social media/blog | Other | the article informs about the BOUNCE architecture and the main components that it consists of | November 2019 | | Bounce website and social media (to be published in December 2019 | General public, health and social care professionals, breast cancer patients, patient organizations, researchers, media. | | Completed | number of downloads/visits | to be published in December 2019 |
| HUJI | EU EIP AHA A3 and Regional Ref Centers meeting | Oral presentation | Pre-Frailty working group meeting | December 4-5, 2019 | Rome, Italy | | Multidisciplinary health professionals, health administrators , patients | 200+ | completed | | |
| Ketti Mazzocco, IEO | Applied research division for cognitive and psychological science: Research and clinical project – area of interests | oral presentation | IEO hosted a delegation of Chinese Oncologists from the Sun Yat-sen University of Guangzhou, Guangdong (China), to | | Milan, Italy | IEO | The attendees included was a delegation of Chinese Oncologists from the Sun Yat-sen University of Guangzhou, | About 15 | completed | | Ketti Mazzocco, IEO |

| | | | encourage intercultural and multi-professional exchange on the most innovative topics in oncology. During the meeting, Ketti Mazzocco illustrated *Bounce H2020* as one of the most innovative research aimed at increase patients' care personalization and patients' resilience. | | | | Guangdong (China) | | | | |
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| **Gabriella Pravettoni, IEO** | The value of research in Psycho-oncology | oral presentation | the Bounce project was presented during the Event "Research Day: together in the coming challenges" at IEO. During this event all clinical and scientific activities performed in IEO were disclosed. Bounce has been presented as one of the multidisciplinary projects implemented in IEO that proposes innovative solutions for the personalization of care. | November 26, 2019 | Milan, Italy | IEO | Psychologists, nurses, physicians, biologists, oncologists and surgeons | About 100 | completed | | Gabriella Pravettoni, IEO |
| **Ketti Mazzocco, IEO** | Applied research division for cognitive and psychological science: Research and | Newsletter | The IEO Magazine reported a newsletter on studies and projects that develop mathematical | November 26, 2019 | IEO Magazine | IEO - website | IEO working staff | IEO working staff | completed | | |

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| | clinical project – area of interests | | models capable of predicting the adaptation of patients to the cancer diagnosis treatments. Within this article the Bounce Project was presented, explaining the aim and the potential outcomes: the predictive models will provide doctors with a patients' profile resulted from the interaction of different factors (biological, psychological and social), and predict resilience during the patient's care pathway. | | | | | | | | |
| **BOUNCE Consortium** | **International Congress of Psychology 2020** | Hosting Symposium/special session/workshop | This symposium will focus on the most recent evidence on how to define the optimal prediction measures for understanding resilience in breast cancer throughout the disease continuum from a multidisciplinary point of view. | 19 – 24 July 2020 | Prague | https://www.icp2020.com/ | Psychologists, nurses, physicians, biologists, epidemiologists | | **Submitted** | | |
| **Evangelos Karademas** | **16th Congress of the International Society of Behavioral Medicine** | Conference | The ISBM is intended to serve the needs of all health-related disciplines concerned with the integration of psychosocial behavioral and biomedical sciences. Goal: to inform health professionals | 19-22 August 2020 | Glasgow, Scotland | ISBM - International Society of Behavioral Medicine | Psychologists, nurses, physicians, biologists, epidemiologists | >1500 | **Under preparation** | - | Dependable on the availability of data from the early phases of BOUNCE |

| | | | about BOUNCE and its first findings | | | | | | | | |
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| **Evangelos Karademas** | **Annual Conference of the European Health Psychology Society** | Conference | EHPS is a professional organisation formed to promote empirical and theoretical research in and applications of health psychology within Europe as well as the interchange of information related to health psychology with other associations throughout the world towards an international achievement of these aims. Goal: to inform health psychologists about BOUNCE and its first findings | 25-29 August, 2020 | Bratislava, Slovakia | EHPS - European Health Psychology Society | Health psychologists, Clinical health psychologists | 1000 | **Under preparation** | - | Dependable on the availability of data from the early phases of BOUNCE |
| **G. Stamatakos, ICCS (presenter)** **Evangelos Chatzidimitriou, Eleni Kolokotroni, Ruth Pat - Horenczyk, Shlomit Perry, Yaira Hamama-Raz, Salomon M. Stemmer, Chariklia Tziraki, and Georgios S. Stamatakos** | **VPH 2020 (Virtual Physiological Human Conference)** | Paper presentation and publication in the Book of Abstracts "In-silico systems for well-being: Artificial Intelligence based analysis of psychological, mental, functional and quality of life aspects of life after breast cancer treatment" | The biennial VPH conference is the main event of the Virtual Physiological Human society focusing on the emerging field of in silico medicine | 26-28 August 2020 | Paris, France - online | The Virtual Physiological Human Institute | Natural Scientists, Engineers, Clinicians | About650 | **Done** | - | https://vph2020.sciencesconf.org/ |

| Ketti Mazzocco, IEO | **International Psycho-Oncology Society** | Congress | The annual IPOS World Congress of Psycho-Oncology and Psychosocial Academy brings together professionals in diverse fields from around the globe who dialogue about improving cancer care on an international level and developing strategies to add psychosocial issues to all aspects of cancer control. | June 16-19, 2020 | Kyoto, Japan | IPOS | The attendees include, but are not limited to, psychologists, psychiatrists, physicians, nurses, social workers, social scientists, patient advocates, educators and administrators, dieticians, epidemiologists, spiritual care specialists, and vocational rehabilitation specialists | | Submitted | | Abstract submission deadline: January 1st 2020 |
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| FORTH | Special Session – Technological and Data-Driven Innovations in Cancer Care (Tech4Cancer) | **Special Session** | International Symposium on Computer Based Medical Systems (CMBS 2020 | 22-24 June, 2020 | Mayo Clinic, Rochester | IEEE | Natural Scientists, Engineers, Clinicians | 30 | **Completed** | Strong link with other EU projects in cancer management | |
| FORTH | **ACM Petra 2020 - PErvasive Technolgies Related to Assistive Environments Conference** | Conference Paper | Paper Presentation: INTEGRA: A Web-Based Differential Diagnosis System Combining Multiple Knowledge Bases | June, 2020 | Corfu, Greece | ACM | Data Management Researchers | 200 | **Completed** | Inform the research community about a developed approach for differential diagnosis using . | |
| FORTH | ISWC 2020 | Presentation | Developing the BOUNCE Psychological Ontology | 1-6 November 2020 | Virtual | International Semantic Web Conference | Biomedical Enginers | N/A | **Completed** | | |
| FORTH | **Journal of Medical Internet Research (JMIR)** | Journal publication | Article on: Status and Recommendations of Technological and Data-Driven Innovations in Cancer Care: Focus Group Study | December 2020 | | JMIR publications | Researchers, Clinicians | | **Completed** | Inform the research community on status and recommendations of technological innovations in cancer research. | |

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| | | | J Med Internet Res 2020;22(12):e22034 | | | | | | | | |
| Verde, A. S. C. et al. CHAMP | European Congress of Radiology (ECR) 2021 Book of Abstracts. Insights into Imaging 12 | Conference Abstract | Assessment of subcortical brain volume changes in breast cancer patients undergoing treatment: A pilot study | March,2021 | | European Congress of Radiology (ECR) | Researchers, Clinicians | NA | Published | | |
| FORTH | IEEE, International Conference on Data Engineering | Presentation | Semantic Patches for Coupled Database-Application Evolution | 19-22 April 2021 | Virtual (China) | | researchers, practitioners, developers | >1000 | Completed | | |
| FORTH | Scientific Journal: Computers in Biology and Medicine | Conference Paper | A machine learning-based pipeline for modelling medical, socio-demographic, lifestyle and self-reported psychological traits as predictors of mental health outcomes after breast cancer diagnosis: An initial effort to define resilience effects | April, 2021 | NA | NA | Biomedical Researchers, Oncologists, Clinical researchers | NA | Completed | | |
| Evangelos Karademas (FORTH) and BOUNCE consortium | Scientific Journal: Psychooncology | Paper | Cognitive, emotional, and behavioral mediators of the impact of coping self-efficacy on adaptation to breast cancer: An international prospective study | April 2021 | NA | NA | NA | NA | Completed (Published) | | |
| Almeida, S. et al CHAMP | Annals of Oncology | Conference Abstract | The psychological impact of the COVID-19 pandemic on patients with early breast cancer | May 2021 | NA | European Society for Medical Oncology | Researchers, Clinicians | NA | Published | | https://doi.org/10.1016/j.annonc.2021.03.146 |

| Paula Poikonen-Saksela HUS | Helsinki University Aalto University | Lecture | Big data and AI in medicine | 12 May 2021 | Helsinki University Aalto University | HUS | Medical students | 40 | Completed | | |
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| Paula Poikonen-Saksela HUS | Helsinki University | Lecture | Meeting that changed my life: Deliver initial information for cancer patient with multidisciplinary collaboration | 18 May 2021 | Helsinki University | HUS | Medical students, Nurse students and Experts | 25 | Completed | | |
| Ruth Pat-Horenczyk | Scientific Meeting, HUS CCC | Lecture | Lecture about resilience in breast cancer and BOUNCE project | 14 May 2021 | HUS clinical center | HUS | Oncologists, nurses, etc | 30 | Completed | | |
| Ketti Mazzoco IEO | IPOS Congress | Symposium | Predicting effective adaptation to breast cancer to help women to bounce back: The role of fear of recurrence and personal characteristics in the process of coping | 26-29 May, 2021 | Virtual | | Oncologists, nurses, psychiatrists, psychooncologists, clinical researchers | > 1000 | Completed | | |
| FORTH (Konstantina) | "Multidimensional Computational Methods for Modeling Cancer Diagnosis, Prognosis and Treatment " | Lecture | Lecture on the BOUNCE results | June 2021 | Technical University of Crete | TUC | Biomedical Engineering MSc Students | 30 | Completed | | |
| FORTH | PETRA, 2021 | Conference paper acceptance | Prediction of COVID-19 infection based on symptoms and social life using machine learning techniques | June, 2021 | NA | NA | Biomedical Researchers | NA | Completed | | https://dl.acm.org/doi/fullHtml/10.1145/3453892.3462696 |

| Simos Panagiotis | Health IT Conference | Presentation | Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back HEALTH IT | 15 - 16 June, 2021 | Virtual | | Biomedical Researchers, Oncologists, Clinical researchers | >1000 | **Completed** | | |
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| **CHAMP & BOUNCE Consortium** | **International Congress of Psychology 2020** | Hosting Symposium/special session/workshop | "Interdisciplinary approaches to assess psychological resilience in breast cancer survivors" This symposium will focus on the most recent evidence on how to define the optimal prediction measures for understanding resilience in breast cancer throughout the disease continuum from a multidisciplinary point of view. | ~~19 – 24 July 2020~~ 18-23 July 2021 | (Virtual) Prague | https://www.icp2020.com/ | Psychologists, nurses, physicians, biologists, epidemiologists | >1000 | **Completed** | | Rescheduled due to Covid pandemic. |
| **FORTH** | **International Conference on Biomedical and Health Informatics** | Presentation | Sensor-based behavioral informatics in support of Health Management and Care | 27-30 July 2021 | Virtual | | Biomedical Researchers, Oncologists, Clinical researchers | >1000 | **Completed** | | |
| Eugenia Mylona FORTH | International Conference on Biomedical and Health Informatics (BHI'21) jointly organised with the 17th IEEE-EMBS International Conference on wearable and implantable body sensor networks (BSN'21) | Presentation | Dynamic patterns of change in mental health following breast cancer diagnosis: A trajectory-based unsupervised clustering approach | 27 - 30 July, 2021 | Virtual | https://www.bhi-bsn-2021.org/?page_id=2336 | Biomedical engineers, health informatics | >1000 | **Completed** | | |

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| Evangelos Karademas FORTH | 35th Annual Conference of the European Health Psychology Society | Oral Presentation | The impact of cultural and health-care system differences on psychological adaptation to breast cancer. | 23rd – 27th August, 2021 | Virtual | | Psychologists, Health Psychologists | >500 | Completed | | |
| Chiara Marzorati | Congress of Italian Psychology Association | Communication | Communication to the Congress of Italian Psychology Association | 6-9 September2021. | Lecce, Italy | Italian Psychology Association | Psychologists | | Completed | | |
| Georgios Stamatakos (ICSS) | "6 th Scientific Forum: Biosciences, Innovation, Technology, and Cancer: from Prevention to Therapy", | Presentation Invitation | Bounce Project Presentation: "The BOUNCE Project: Predicting Effective Adaptation to Breast Cancer to Help Women to bounce back" | 15-17 October, 2021 | Athens, Greek | http://gk.gr/en/portfolio/biosciences-innovation-technology-cancer-from-prevention-to-therapy/ | Medical Doctors, Engineers, Basic Scientists, Psychologists | >1000 | Completed | | |
| CHAMP | 4th Dissemination Event | Dissemination Event Scientific Workshop | | 8th October 2021 | Virtual | CHAMP | General Population | 62 | Completed | | |
| FORTH | 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society | Conference paper acceptance | Prediction of Poor Mental Health Following Breast Cancer Diagnosis Using Random Forests | November, 2021 | NA | NA | Biomedical Researchers, Oncologists, Clinical researchers | >1000 | Completed | | |
| ICSS & CHAMP | CHAMP Neuropsychiatry Lab meeting | Lecture | "Advanced Biostatistics and Artificial Intelligence for the analysis and modelling of resilience aspects for women following early breast cancer treatment, in the framework of the BOUNCE project" | 18th November 2021 | Virtual | CHAMP | Psychiatrists, Phycologists, researchers, nurses | 30 | Completed | | |

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| **Paula Poikonen-Saksela (HUS)** | EU Research magazine | Press-release | . BOUNCE project in the winter 2021 issue of EU Research magazine | December,2021 | NA | HUS | - | NA | Completed | | |
| **Leena Vehmanen et al. HUS & Bounce partners** | Acta Oncologica | Journal Publication | Associations between physical exercise, quality of life, psychological symptoms and treatment side-effects in early breast cancer" | January 2022 | NA | Acta Oncologica | Researchers, Clinicians | NA | Submitted | | |
| **Ruth Pat-Horenczyk et al. HUJI & Bounce partners** | Social Science and Medicine | Journal Publication | "The moderating role of coping flexibility in reports of somatic symptoms among early breast cancer patients" | January 2022 | NA | Social Science and Medicine Journal | Researchers, Clinicians | NA | Submitted | | |
| Nuutinen, Mikko (NHG | 15th International Joint Conference on Biomedical Engineering Systems and Technologies | 8 pages conference article and conference presentation (20 minutes) | "Impact of machine learning assistance on the quality of life prediction for breast cancer patients." | 2 - 11 February, 2022 | Virtual | HealthInf BIOSTEC | Researchers and practitioners interested in the specification, design, development and application of information and communication technologies (ICT) to healthcare and medicine | | Completed | | https://healthinf.scitevents.org/?y=2022 |
| **Karademas et al. FORTH & Bounce partners** | Psychology & Health | Journal publication | The mutual determination of self-efficacy to cope with cancer and cancer-related coping over time: a prospective study in women with breast cancer | February, 2022 | NA | Psychology & Health Journal | Researchers, Clinicians | NA | Published | | https://doi.org/10.1080/08870446.2022.2038157 |
| **Poikonen-Saksela, P. et al. HUS & ICSS** | Scientific reports | Journal publication | A graphical LASSO analysis of global quality of life, sub scales of the EORTC QLQ-C30 instrument and | February, 2022 | NA | Nature Scientific reports | Researchers, Clinicians | NA | Published | | https://doi.org/10.1038/s41598-022-06138-2 |

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| | | | depression in early breast cancer | | | | | | | | |
| **Raquel Lemos et al.**<br><br>**CHAMP** | **Frontiers in Psychology** | Journal Publication | "Cross-Cultural Adaptation and Psychometric Evaluation of the Perceived Ability to Cope with Trauma (PACT) Scale in Portuguese Patients with Breast Cancer" | February 2022 | NA | **Frontiers in Psychology** | Researchers, Clinicians | NA | Published | | https://doi.org/10.3389/fpsyg.2022.800285 |
| **Ilan Roziner et al.**<br>**HUJI & Bounce partners** | Stress & Health | Short Communication | "Psychological and somatic symptoms among breast cancer patients in four European countries. A cross-lagged panel model" | February 2022 | NA | Stress & Health Journal | Researchers, Clinicians | NA | Submitted | | |
| **Mikko Nuutinen et al.**<br>**NHG & Bounce partners** | Artificial Intelligence in Medicine | Journal Publication | "Aid of machine learning algorithm can improve clinician predictions of patient quality of life during breast cancer treatments" | March 2022 | NA | Artificial Intelligence in Medicine | Researchers, Clinicians | NA | Submitted | | |
| **BOUNCE Consortium** | **Journal of Medical Internet Research (JMIR)** | Journal Publication | "Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back: study protocol for a multicenter clinical pilot" | April,2022 | NA | JMIR publications | Researchers, Clinicians | NA | **Accepted** | | |
| **Karademas et al.**<br><br>**FORTH & Bounce partners** | **Journal of Clinical Psychology in Medical Settings** | Journal Publication | "The Interplay Between Trait Resilience and Self-efficacy to Cope with Cancer in Patients with Breast Cancer: An international Study " | April 2022 | NA | Journal of Clinical Psychology in Medical Settings | Researchers, Clinicians | NA | **Accepted** | | |

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| **Kourou K. et al**<br><br>**FORTH & Bounce partners** | Cancer research and treatment | Journal Publication | Determining personalized psychosocial, behavioral, and biological risk factors for one-year mental health deterioration using adaptive learning algorithms: A multicenter breast cancer prospective study | April 2022 | NA | | Researchers, Clinicians | NA | Submitted | | |
| **Paula Poikonen-Saksela (HUS)** | HUS CCC Scientific meeting | Presentation | BOUNCE final results | 29th April 2022 | HUS CCC | HUS | Oncologists, Psychiatrists, Phycologists, researchers, nurses | ? | Planned | | |
| **Karademas et al.**<br><br>**FORTH & Bounce partners** | Health Psychology | Journal Publication | "Types of Change Over Time in Self-efficacy to Cope with Breast Cancer and their Relations to Patient Well-being". | April 2022 | NA | | Researchers, Clinicians | NA | Submitted | | |
| **Dimitris Fotiadis (FORTH)** | 44th Annual International Conference of IEE and IEEE Engineering in Medicine and Biology Society (EMBC'22) | Presentation | Trajectories and Predictors of Depression after Breast Cancer Diagnosis: one year longitudinal study | 11-15 July 2022 | Glasgow | IEE and IEEE Engineering in Medicine and Biology Society | - Biomedical engineers, health informatics | >1000 | Accepted | | |
| **Verde, A. S. C. et al.**<br>**CHAMP** | **European Congress of Radiology (ECR)** | Oral Presentation | Detection of regional white-matter cingulum alterations in breast cancer patients | 13-17 July, 2022 | Vienna | >1000 | Radiologists, Researchers | | Accepted | | |

| Ketti Mazzoco(IEO) | IPOS World Congress | Presentation | "Family resilience: early predictors and long term mental health outcomes in breast cancer patients " | 29 August – 1 September,2022 | Toronto | International Psychooncology Society | Psychologists, Psyhcooncologists | >1000 | Submitted | | |
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| **ICCS in collaboration with several other BOUNCE partners** | Virtual Physiological Human Conference 2022 | Presentation | Artificial intelligence based in silico models for the prediction of resilience related psychological, psychiatric and functional trajectories in women with early breast cancer" | 6-9 September 2022 | Porto | Virtual Physiological Human Conference | - Biomedical engineers, health informatics | >1000 | Submitted | | |

# Appendix 2



*Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back*

**Fourth Dissemination Virtual Meeting**

**Mental health and neurocognition in Breast Cancer Patients**

*Organizer: Champalimaud Foundation*

On 8th of September 2020, the Champalimaud Foundation will present the 4th dissemination virtual event of the European Project *BOUNCE: Predicting Effective Adaptation to Breast Cancer to Help Women to BOUNCE Back*.
An interdisciplinary consortium of experts from Italy, Finland, Israel, Greece, and Portugal was formed in 2017 in response to a HORIZON 2020 call for Personalized Medicine research and innovation solutions. The product of this collaboration was BOUNCE, a funded project developed to explore factors that influence breast cancer patients' long-term psychological resilience and their capacity to resume a normal everyday life and work, following breast cancer treatments.
A clinical pilot run in 4 medical centers has recruited 817 participants between November 2018 and February 2020. For 18 months, biomedical, psychological and functional data was collected every 3 months in this longitudinal pilot, and has August 2021, 504 patients have completed the study.
With the use of data mining tools and applied machine learning approaches, the project has actively contributed to the identification of factors and processes that may predict along the care pathway the patients' resilience and their wellbeing. This model will provide information on which combination of factors undermine the adjustment to cancer, allowing an early identification of women at risk and design appropriate interventions.
The use of electronic patient reported outcomes in this study was beneficial for allowing participants to track their own wellbeing during the COVID-19 pandemic, enabling deeper self-understanding and empowering patients.
The aim of the Bounce 4th dissemination event will be to present some preliminary data achieved form the work so far, as well as to promote awareness on mental health in breast cancer patients, discussing multidisciplinary care path approaches, and the latest biomedical research of depression.
We also invite you to participate in the 2021 Champalimaud Research Symposium (CRS21) happening in the 13-15th of October *(link de registo)*
You are also free to participate in a Portuguese public session on the impact of digital health in patient centered medicine.

**Friday, October 8, 2021**

Free registration to the following link:
*GoToWebinar:*

## SCIENTIFIC WORKSHOP PROGRAM

9.30-9.40    ### Welcome words & short introduction

Fatima Cardoso & Albino Oliveira Maia, *Champalimaud Foundation, Lisbon*

fatimacardoso@fundacaochampalimaud.pt

albino.maia@neuro.fchampalimaud.org

9.40-11.155    ### Patient Centered Care in Breast Cancer

Chairs: **Fatima Cardoso** and **Luzia Travado**, *Champalimaud Foundation, Lisbon*

luzia.travado@fundacaochampalimaud.pt

9.40-9.55    ### The mental health perspective

Greta Pettini, *European Institute of Milan, University of Milan*

Greta.Pettini@ieo.it

9.55-10.10    ### The oncology perspective

Berta Sousa, *Champalimaud Foundation, Lisbon*

10.10-10.25    ### The nurse perspective – The E-smart project

Roma McGuire, *University of Strathclyde, Glasgow*

roma.maguire@strath.ac.uk

10.25-10.40    ### The patient perspective

Tanja Spanic, *Europa Donna- The European Breast Cancer Coalition*

tanja.europadonna@gmail.com

10.40-10.55    ### The Bounce project

Paula Poikonen-Saksela, *Helsinki University Hospital, Helsinki, Finland*

paula.poikonen-saksela@hus.fi

10.55-11.15    Q&A and Panel discussion: speakers + moderators

*Coffee break*

11.30-12.30    ### Cognitive function in breast cancer patients

Chairs: **Raquel Lemos**, *Champalimaud Foundation, Lisbon* and **Paula Poikonen-Saksela**, *Helsinki University Hospital, Helsinki*

raquel.lemos@neuro.fchampalimaud.org

11.30-11.50    ### Neurocognitive deficits in breast cancer patients

Kathleen Van Dyk, *UCLA Semel Institut & Jonsson Comprehensive Cancer Center, Los Angeles*

KVanDyk@mednet.ucla.edu

11.50-12.30    ### Main avenues in future neurocognitive research

Sanne Schagen, *Cognition Group Lider, Netherlands Cancer Institute*

s.schagen@nki.nl

12.30-12.40    ### Champalimaud-Helsinki cognitive study

Berta Sousa, *Champalimaud Foundation, Lisbon*

12.40-12.55    Q&A and Panel discussion: speakers + moderators

*Lunch break*

14.00-15.20 **Biomarkers of Depression in cancer patients**

Chairs: **Albino Oliveira Maia**, *Champalimaud Foundation, Lisbon* , **Chariklia Tziraki**, Hebrew University, Research Department of MELABEV
tziraki@gmail.com

14.00-14.20 **Immune markers of depression and their relevance for patients with cancer**

Maria Antonieta Nettis, King´s College, London
maria.a.nettis@kcl.ac.uk

14.20-14.40 **Novel circuit-targeted therapeutics for depression**

Shan Siddiqi, Brigham & Women's Hospital, Harvard Medical School
SHSIDDIQI@BWH.HARVARD.EDU

14.40-15.00 **The neuroimaging perspective - Assessment of brain volumetric changes in breast cancer patients"**

Ana Castro Verde, *Champalimaud Foundation, Lisbon*
ana.castroverde@research.fchampalimaud.org

15.00-15.20 Q&A and Panel discussion: speakers + moderators

15.20- 15.30 **Workshop closing remarks**