

12th Online Webinar

Date: 15/05/2022, 5:00-6:00pm





#### **Breast Cancer Forum**

Seminar series organised by

Clinical Department of Oncology, MedUni Vienna

Univ.-Prof. Dr Matthias Preusser and Assoc. Prof. Dr Rupert Bartsch

University Hospital for Internal Medicine I

In cooperation with

the Federal Chancellery, Women's Department, and Federal Minister MMag. Dr Raab



With funds from Women's Affairs





# Final module Take-home messages

Univ.-Prof. Dr Matthias Preusser, Assoc. Prof. PD Dr Rupert Bartsch Clinical Department of Oncology, University Department of Internal Medicine I, MedUni Vienna





#### Assoc. Prof. PD Dr Rupert Bartsch

Specialist in internal medicine since 2008

Additive specialist in haematology and oncology since 2010

Since 2002 at the clinical department for oncology

2009/2010 Elisabethinen Hospital, Linz

2017/2018 German Breast Group, Neu Isenburg, Germany

Head of specialist outpatient clinic for breast cancer





# Final module Take-home messages

**Breast Cancer Forum** 





#### Note

The following presentation contains images that may be disturbing to some people.





- Module 1:
- Prof. Dr Alexandra Resch, M.A.
- Breast cancer screening life-saving or pointless?



#### What is screening for?

- Bringing forward the time of diagnosis to a stage favourable for prognosis
- Improving the chances of cure via gentler methods of therapy
- Reduction of disease and therapy-related suffering
- Reduction of mortality

S3 Breast Cancer Guideline <a href="https://www.awmf.org/leitlinien">https://www.awmf.org/leitlinien</a>





#### Medical journal: THE LANCET - 13 April 1985

# Reduction in mortality from breast cancer after mass screening with mammography

Randomised trial from the Breast Cancer Screening Working Group of the Swedish National Board for Health and Welfare

REDUCTION IN MORTALITY FROM BREAST CANCER AFTER MASS SCREENING WITH MAMMOGRAPHY

Randomised Trial from the Breast Cancer Screening Working Group of the Swedish National Board of Health and Welfare

L. TABÁR A. GAD L. H. HOLMBERG C. J. G. FAGERBERG L. BALDETORP O. GRÖNTOFT

**Result:** 31% reduction in breast cancer mortality and 25% reduction in the rate of stage two or higher breast cancer





#### How dangerous is mammography? Can compression or radiation cause breast cancer?

- In a study at the University of Salford (UK), various national screening programmes were examined with regard to the question of how many cancer cases might be triggered in women by taking part in mammography screening.
- According to the calculations of the study authors, seven out of 1,000,000 regular participants in mammography screening in Germany develop a malignant tumour due to the radiation administered in the process (after 15-20 years).
- **Limitation:** These figures only apply to full-field digital mammography. In reality, they are probably somewhat lower because the age-related decrease in breast density was not taken into account in the calculations. In the same period, however, around 80,000 women develop breast cancer that is not radiation-related.

Effective lifetime radiation risk for several national mammography screening programs R.M.K. M.Ali A. England M.F. McEntee C.E. Mercer A. Tootell P. Hogg Open Access Published: 15 March, 2018DOI: https://doi.org/10.1016/j.radi.2018.02.001





- Module 2:
- Karin Isak, MA
- "Breast cancer" diagnosis:Who will help me?



#### "Breast cancer" diagnosis

- Women/men are usually completely unprepared for a diagnosis of "breast cancer",
  hitting them out of the blue in the middle of their lives.
   From one moment to the next, the diagnosis changes the entire life of those affected,
  and their families.
- Shock, existential fears, depression, uncertainty, hope, despair, anger, aggression, feelings of guilt, cancer myths - emotional chaos/imagination running wild/mind in a spin
- No one falls ill alone all family members are involved and challenged

# Counselling services from ÖKH All-round help from one source

- Medical information and counselling
- Advice on complementary medicine
- Psycho-oncological counselling and support in all stages of the disease and in the mourning process
- Cancer and your job
- Nutrition and exercise counselling





# Effects of psycho-oncological care It's good to talk!

- Strengthening communication with therapists
- Improving tolerance of therapies
- Making it easier to cope with pain
- Readiness to actively participate in therapeutic measures
- Improving the ability to relax by teaching various relaxation techniques

- Module 3:
- Claudia Altmann-Pospischek, MA
- Me and my disease



#### Living with your disease

- · Claudia Altmann-Pospischek, MA: Patient, breast cancer activist and blogger
- From shock to determining for yourself how to live with your disease
- Giving a voice to people with metastatic breast cancer
- De-tabooing
- Empowerment



- Module 4:
- Univ.-Prof. Dr Christian Singer
- Hereditary breast cancer



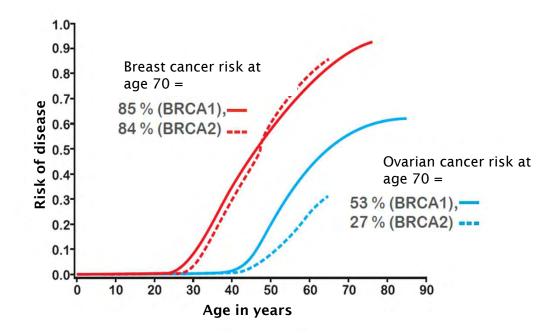
# Hereditary breast and ovarian cancer Why is this topic so important?

- Breast cancer affects one in eight women during their lifetime (lifetime risk: 12.5%)
- Ovarian cancer affects about one in 70 women (lifetime risk: 1–2%)
- In certain families, breast and/or ovarian cancer occur significantly more often ("familial disposition")
- One in about 300 people have a mutation in the BRCA1 or BRCA 2 gene in all their cells



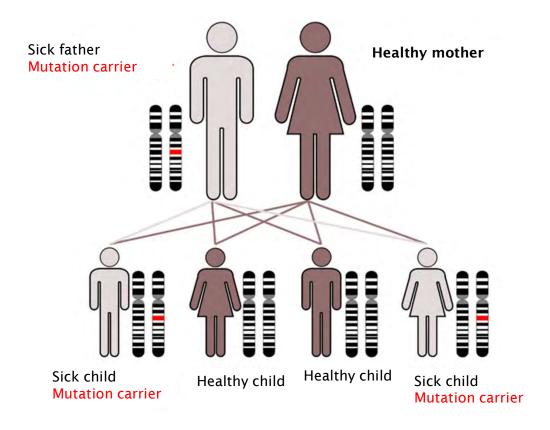


### BRCA1/2 germline mutation Age and risk of disease





### BRCA1/2 germline mutation Autosomal dominant inheritance







# Where can I get more information about familial breast and ovarian cancer?



Über uns Aktuelles Beratungsstellen Informationen Login Kontakt



Wir, das ZENTRUM für Familiären Brust- und Eierstockkrebs, informieren Sie über medizinische Hintergründe, über die Bedeutung einer genetischen Untersuchung, und über die Möglichkeiten, die sich daraus für Sie und Ihre Familie ergeben können. Außerdem finden Sie eine Hilfestellung bei der Entscheidung für oder gegen eine genetische Untersuchung.

#### Informationen über erblichen Brust- und Eierstockkrebs

Wenn Brust- und/oder Eierstockkrebserkrankungen in Ihrer Familie häufig vorkommen, so fragen Sie sich vielleicht, ob Sie selbst, Ihre Kinder, Ihre Geschwister oder andere Familienmitglieder ebenfalls gefährdet sind. Sie möchten möglicherweise wissen: Wie groß ist das Risiko, dass in meiner

#### Informationen für an Eierstockkrebs erkrankte Frauen

Wenn Sie an Eierstockkrebs erkrankt sind, so fragen Sie sich wahrscheinlich, welche Behandlung in Ihrem Fall besonders wirksam ist, und wie Sie persönlich zu Ihrem Behandlungserfolg beitragen können. Sie möchten möglicherweise wissen, ob ihre Krebserkrankung durch genetische Veränderungen bedingt ist, und ob Ihre Kinder, Ihre Geschwister oder andere

www.brustgenberatung.at





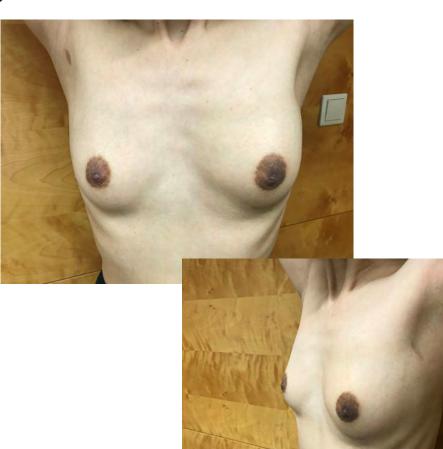
- Module 5:
- Assoc. Prof. Adj. Prof. Dr Ruth Exner, F.E.B.S.
- Operating on the breast



## **Breast-conserving surgery**









#### Breast-conserving surgery – summary



- Biopsy, clip marking of all suspicious foci
- Discussion in the tumour board possibly neoadjuvant systemic therapy (tumour biology, breast conservation)?
- Genetic counselling in the event of a familial risk scenario
- Preoperative marking of non-palpable foci
- The breast should ALWAYS be preserved wherever possible!
- If necessary, intraoperative preparation radiography of the frozen section to ensure that the entire tumour has been removed
- At the same time: lymph node surgery

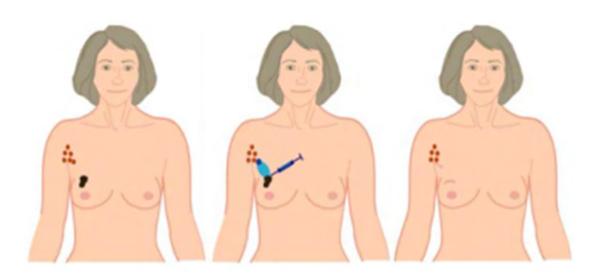
Radiation therapy is required after breast preservation surgery for malignant tumours!





#### Lymph node surgery

- Sentinel lymph node = first lymph node in the armpit
- A gentle operation for diagnostic purposes
- Marking with patent blue or radioactive (Tc99m)





- Module 6:
- Assoc. Prof. Dr Gerd Fastner, MSc
- Radiation therapy: Why?

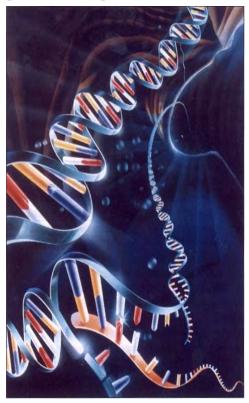


#### How does radiation therapy work?

- The DNA (genetic material) of cells is impacted with every irradiation.
- In healthy tissues, this damage is almost completely repaired by the following day.
- Tumour cells have lost this ability irradiation as a "brake on tumour cell survival".

#### Primary target: DNA

(Single [reversible] double strand breaks)





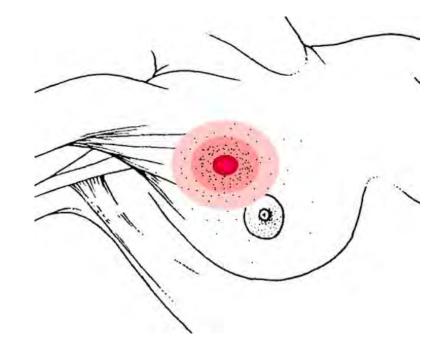
#### How does radiation therapy work?

Any irradiation is an **exclusively local measure**, i.e. it only has any effect (and "side effect") in the irradiation field.

#### **However:**

Sterilisation of residual tumour cells in the remaining breast tissue can also prevent metastasis!

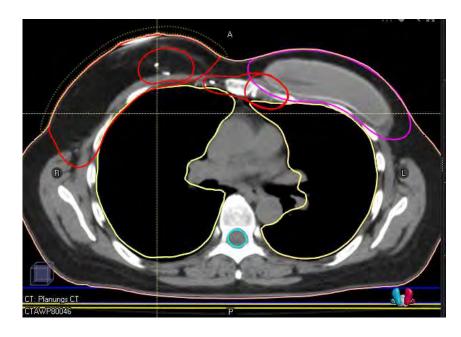
#### Subclinical tumour cell density



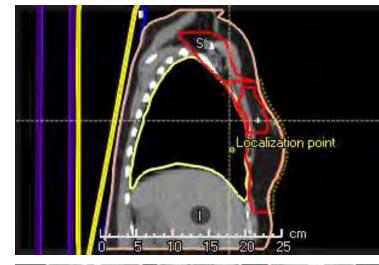


#### **3D planning**

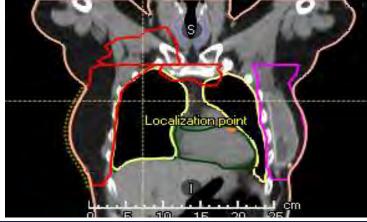
axial



sagittal



frontal







#### **Clinical effect?**

Is tumour recurrence prevented by postoperative radiotherapy (RT)?

#### Clinical studies on breast-conserving surgery (BCT) $\pm$ RT:

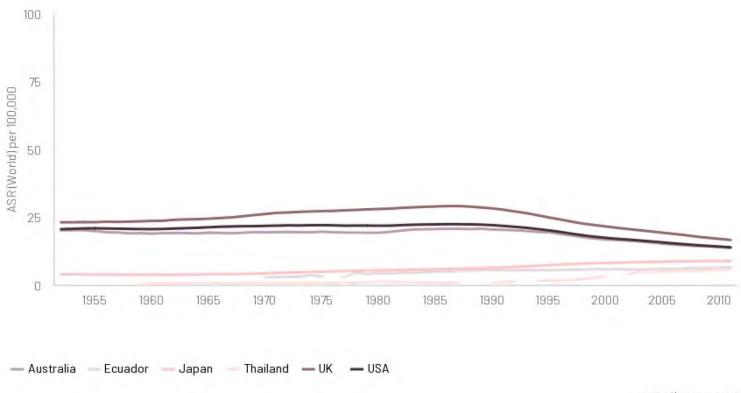
- BCT + RT reduces recurrences by up to 75%
- BCT + RT leads to improved prospects of survival
- BCT + RT has few side effects and does not affect the cosmetic outcome

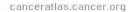
- Module 7:
- Assoc. Prof. Adj. Prof. Dr Marija Balic, MBA
- Drug treatment of breast cancer



#### **Mortality trends**

#### Female breast cancer mortality rates, all ages, 1950-2013

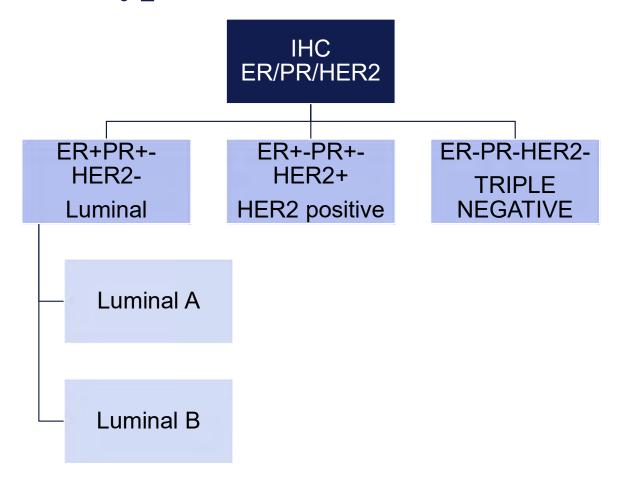








#### Intrinsic subtypes of breast carcinoma







- Module 8:
- Senior Physician Christine Brunner
- Clinical studies: what does it mean for me?





#### Various phases of the clinical study

#### Phase I

A drug is tested on a small group of patients (20-60 people) who have no other treatment options



What **dose** has the best efficacy with acceptable side effects?

#### Phase II

Larger number of patients (50–100 people)



Experience is gained in terms of side effects

#### Phase III

Large number of patients 100-1,000 people (group precisely defined)



Comparison with already available standard therapy





# Who reviews the study before it gets underway at a trial site?



A study protocol must be available for each study.

Detailed "roadmap" of how the study will proceed

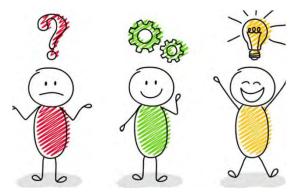
Insurance for the study participants





## I would be interested in taking part in the study – what happens now?

- 1. Detailed discussion in appropriate, easy-to-understand language
- 2. Explanation of potential risks and expected benefits
- 3. Distribution of written patient information leaflets
- 4. Time for questions, discussions with family doctor/specialist/family
- 5. Signed informed consent form







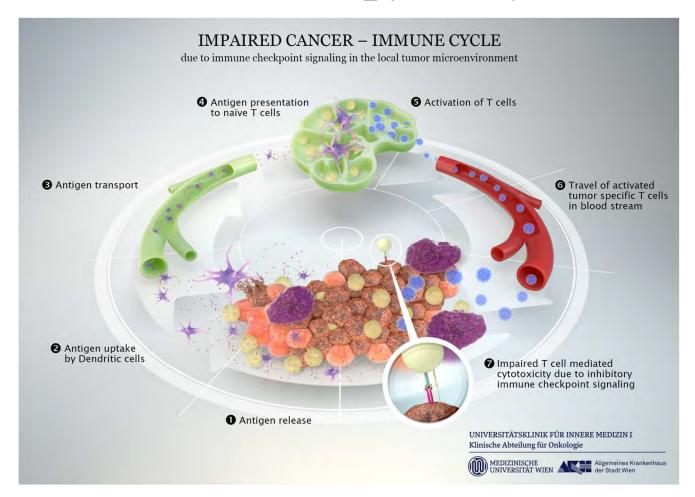


## **Agenda**

- Module 9:
- Assoc. Prof. Adj. Prof. Dr Anna Sophie Berghoff
- So much that is new: immune therapy and other developments



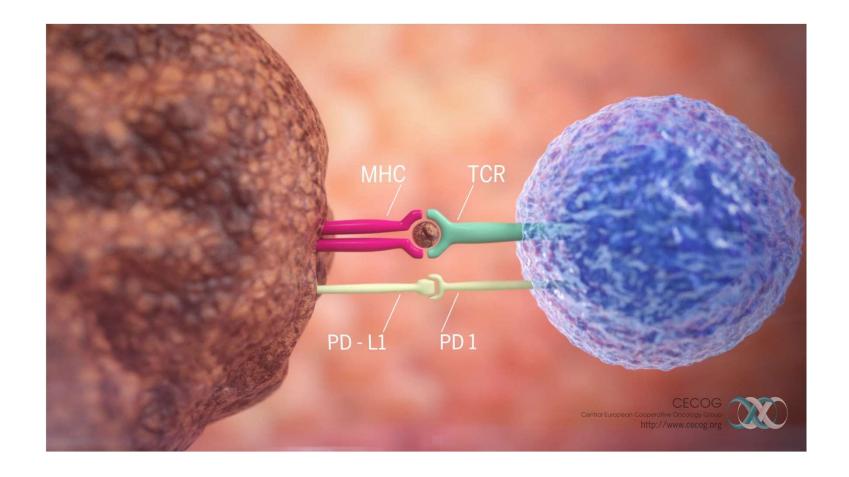
## Why doesn't immune therapy always work?







## How do CAR T cells function?







## Agenda

- Module 10:
- Prim. Dr Marco Hassler
- The journey back: rehabilitation, life



## The perils of the invisible

Sleep disorders

**Fatigue** 

"Chemo-brain"

Pain (scar pain, tumour pain, joint pain, etc.)

Shame and loss of self-esteem due to physical changes

Experiences of loss (body part, strength, youth, beauty, symmetry)

Accompanying mood disorders

Loss of enjoyment and pleasure/sexual identity

Loss of confidence in one's own body

Loss of control over bodily functions

Negative feelings about health and attractiveness

Less visible to those around you – expectations of those around you – outwardly recovered – pressure to perform!





## **Treatment goals**

Reduction of inner turmoil and tension

Relief of symptoms of anxiety and depression

Improvement in physical and sensory perception

Increase in physical and psychological well-being

Pain alleviation

Psychological education

De-tabooing topics such as exhaustion, body image, sexuality, loss

of libido...

Developing support mechanisms

Relaxation techniques





## Summary

- Symptoms can be improved!
- Support in terms of nutritional coaching!



Stay active!

You're not alone!





## Agenda

- Module 11:
- Dr Elisabeth Bergen
- Breast cancer in younger women





## Hot topics for younger patients

Premature ovarian insufficiency

- Fertility & desire to have children
- Menopausal problems

Sexuality

Breast cancer during pregnancy

Long-term side effects

Breast cancer & working





## Cryopreservation

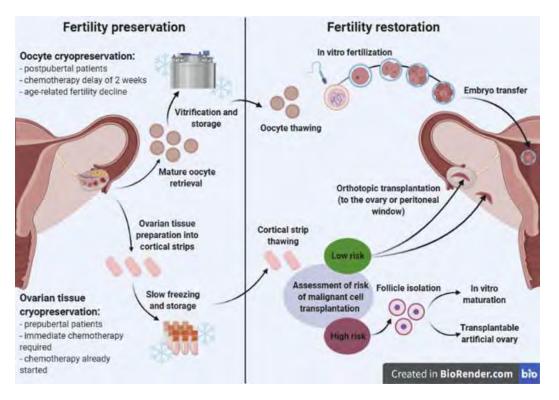
#### of fertilised/unfertilised oocytes:

- preceded by two weeks of stimulation with gonadotropins
- number of eggs retrieved is age-dependent and correlates with probability of pregnancy

#### of ovarian tissue:

Ovarian tissue banking (OTB)

 tissue harvested laparoscopically and transplanted back after chemo



Dolmans MM et al., Fertil Steril, May 2021; 115(5):1102-1115





## Long-term side effects

#### Heart:

Anthracyclines can reduce heart function in the long term in approx. 5% of patients (=cardiomyopathy), particularly in older patients or those with high blood pressure/additional heart diseases.

Thus, in the event of additional risk factors, consider a cardiac echo once a year for up to 10 years after therapy<sup>13</sup>

#### **Bones:**

Oestrogen has a bone-protective effect > ovarian insufficiency (due to chemo or endocrine therapy) may encourage osteoporosis<sup>14</sup>

- > Calcium and vitamin D recommended on a daily basis, especially with endocrine therapy (tamoxifen, OFS + aromatase inhibitor)
- > Potentially denosumab with aromatase inhibitor therapy (+OFS) after breast cancer

Cognitive impairment: "chemo-brain"

Chemotherapy associated with subjectively impaired cognitive function for two years in about 20-30% of all patients, causes not completely understood<sup>15</sup>





## Breast cancer & working<sup>17</sup>

- Everyday work essential as a "normality factor" for many patients
- However, the ability to perform is clearly reduced during therapy > danger of being overburdened
- In principle, there is **no obligation for employers to be advised about a cancer diagnosis**, but an open discussion is often useful in order to be able to make plans (replacing, restructuring, etc.)
- In principle, resigning/being dismissed while on sick leave is possible for either party.
- Increased protection against dismissal in the event of a >50% reduction in earning capacity (apply to Ministry of Social Affairs) = status of supported disabled person
- Entitlement to ongoing payments during sick leave followed by a **sickness benefit** from the Austrian Health Insurance Fund (max. 26 weeks)
- Part-time working hours for reintegration purposes after sick leave as an option to facilitate a return to work
- Care allowance for >65 hours of care per month









## Multidisciplinary care is essential!

Hormonal changes
Sexuality
Breast cancer during
pregnancy
Long-term side effects
Working environment



Fertility counselling
Genetic counselling
Oncoplastic surgery
Breast/cancer nurses
Psychosocial care



## Referenzen Frau Dr. Bergen

- 1) Deutsches Krebsforschungszentrum
- 2) Ferlay et al, Int J Cancer.2010;127:2893-2917
- 3) www.onkopedia.at
- 4) Vila J et al, Breast 2015;24:175-181
- 5) Chung APet al, Surg Oncol 2008;17:261-266
- 6) Lambertini M et al, J Clin Oncol. 2018 Jul 1:36(19):1981-90
- 7) Gemignani ML et al, Adv Surg. 2000;34:273-86. PMID: 10997223.
- 8) Bellet M et al, Cancer Res. 2019;79:P4-P14
- 9) Balic M et al, Breast Care, 2019;14:103-110
- 10)Curigliano et al, Ann Oncol, 2017;28:1700-1712
- 11)Bae et al, Oncology. 2018;95(3):163-9
- 12)Peccatori et al, Ann Oncol, 2013; 24 Suppl 6:vi160-70
- 13) Van Hassalt et al, Ann Oncol. 2014;25:2059-65
- 14) Azim et al, Annals of Oncology 22: 1939-1947, 2011
- 15)Paluch-Shimon S et al, Ann Oncol. 2016; 27:v103-v110
- 16) Gregorowitsch ML et al, Breast Cancer Res Treat. 2019;175:429-441
- 17)www.krebshilfe.net

#### Illustrations:

- Azim HA, Jr et al., Clin Cancer Res. 2012; 18: 1341-1351. doi: 10.1158/1078-0432.CCR-11-2599.
- Azim HA, Jr. et al., BMC MED. 2015; 13:266
- · Lambertini, M. et al., Annals of Oncology, Volume 31, Issue 12, 1664-1678
- Dolmans MM et al., Fertil Steril, May 2021; 115(5): 1102-1115.
- Kathryn J. Ruddy and Ann H. Partridge, Journal of Clinical Oncology 2012, 30:30, 3705-3711
- Petrek JA et al., J Clin Oncol. Mar 1 2006; 24(7): 1045-51.
- Franzoi MA et al., Lancet Oncol. Jul 2021; 22(7): e303-e313.
- Lambertini M et al., J Clin Oncol. 10 Oct 2021; 39(29): 3293-3305.





# Thank you very much

**Breast Cancer Forum** 







## Interview

Questions & answers

**Breast Cancer Forum** 







## Preview

Webinar series
2022–2023

Cancer in Women forum





# New webinar series "Cancer in Women forum"

## **September 2022 to December 2023** Starts 26/09/2022, 5:00–6:00pm

### **Organiser**

Univ.-Prof. Dr Matthias Preusser & Assoc. Prof. PD Dr Rupert Bartsch Clinical Department of Oncology, University Department of Internal Medicine I, MedUni Vienna







Thank you very much for taking part

**Breast Cancer Forum** 



