

Metastatic Breast cancer

Prof Arlene Chan

Medical Oncologist

Director Breast Clinical Trials Unit, Mount Hospital

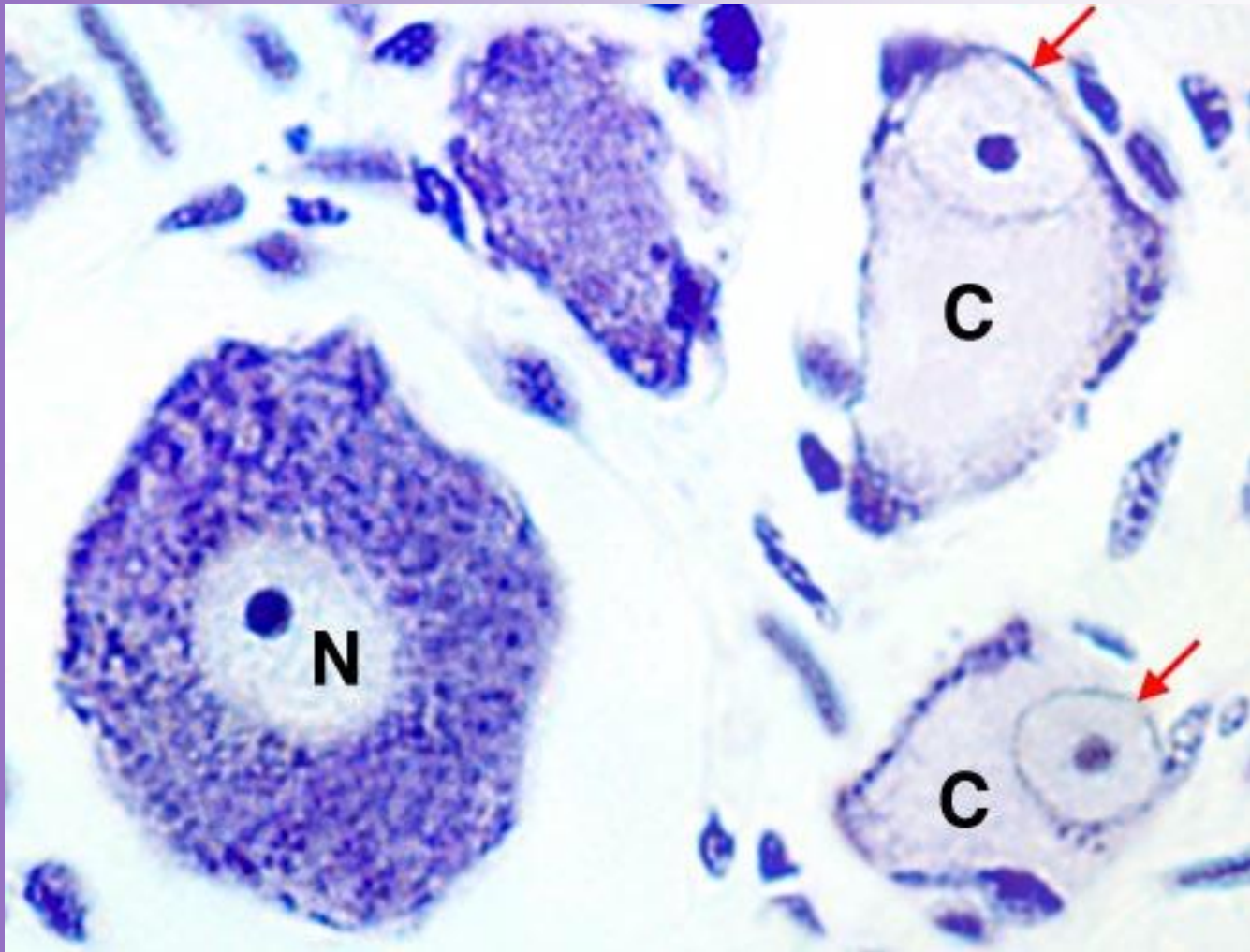
Vice-Chair Breast Cancer Research Centre - WA

Outline

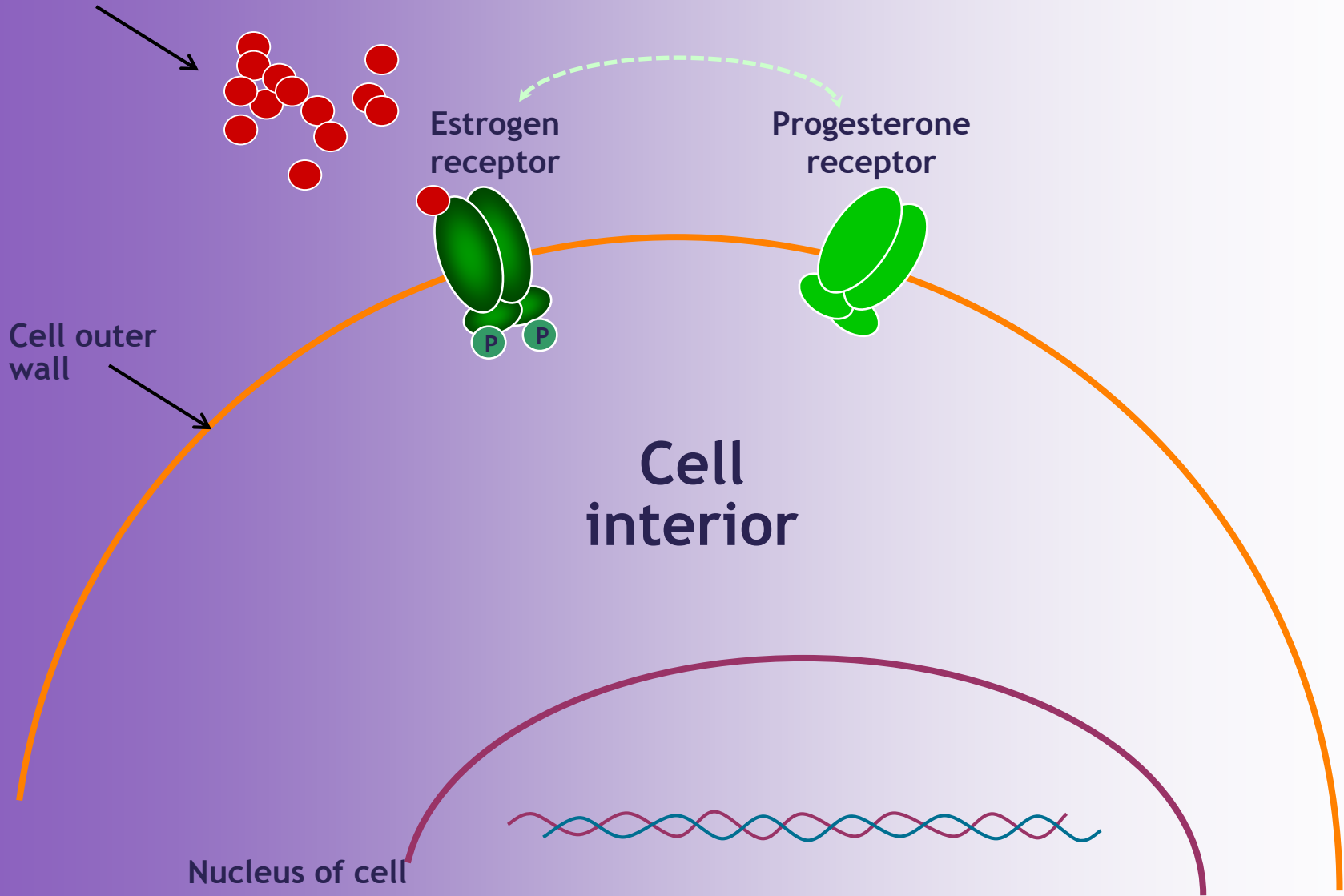
- Metastatic breast cancer: What's new
- Tumour markers
- Scans: CT/ Bone / MRI / PET / US / Xrays

Definitions

- Estrogen receptors
Progesterone receptors
 - On cancer cells
 - On normal cells
Breast, Skin, Blood vessel,
Brain, Uterus, Muscles etc
- Estrogen – found in blood & body fluids
- Estrogen positive cancer = Hormone positive cancer
 - treated with Endocrine drugs

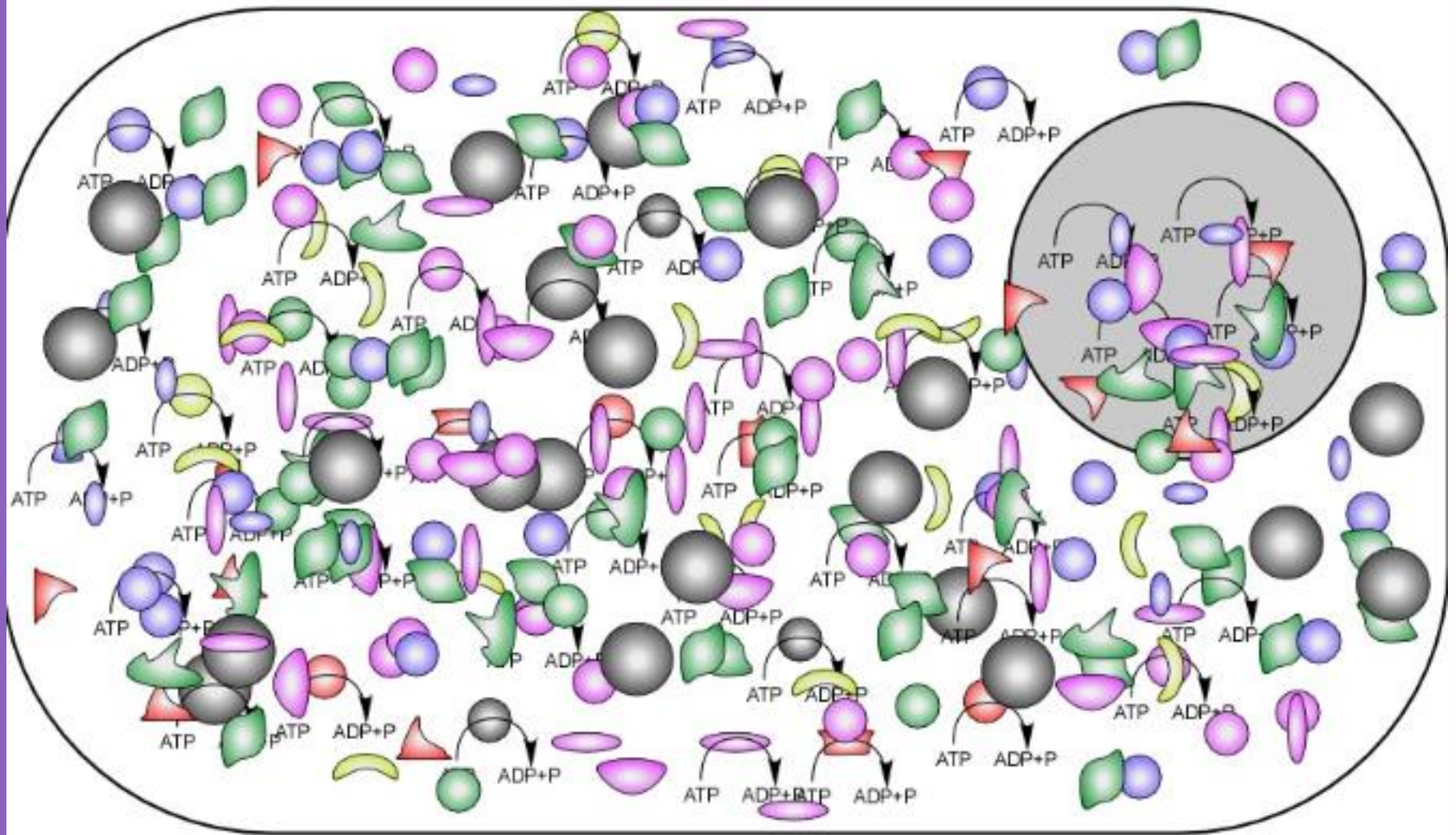


Estrogen in circulation & body fluids



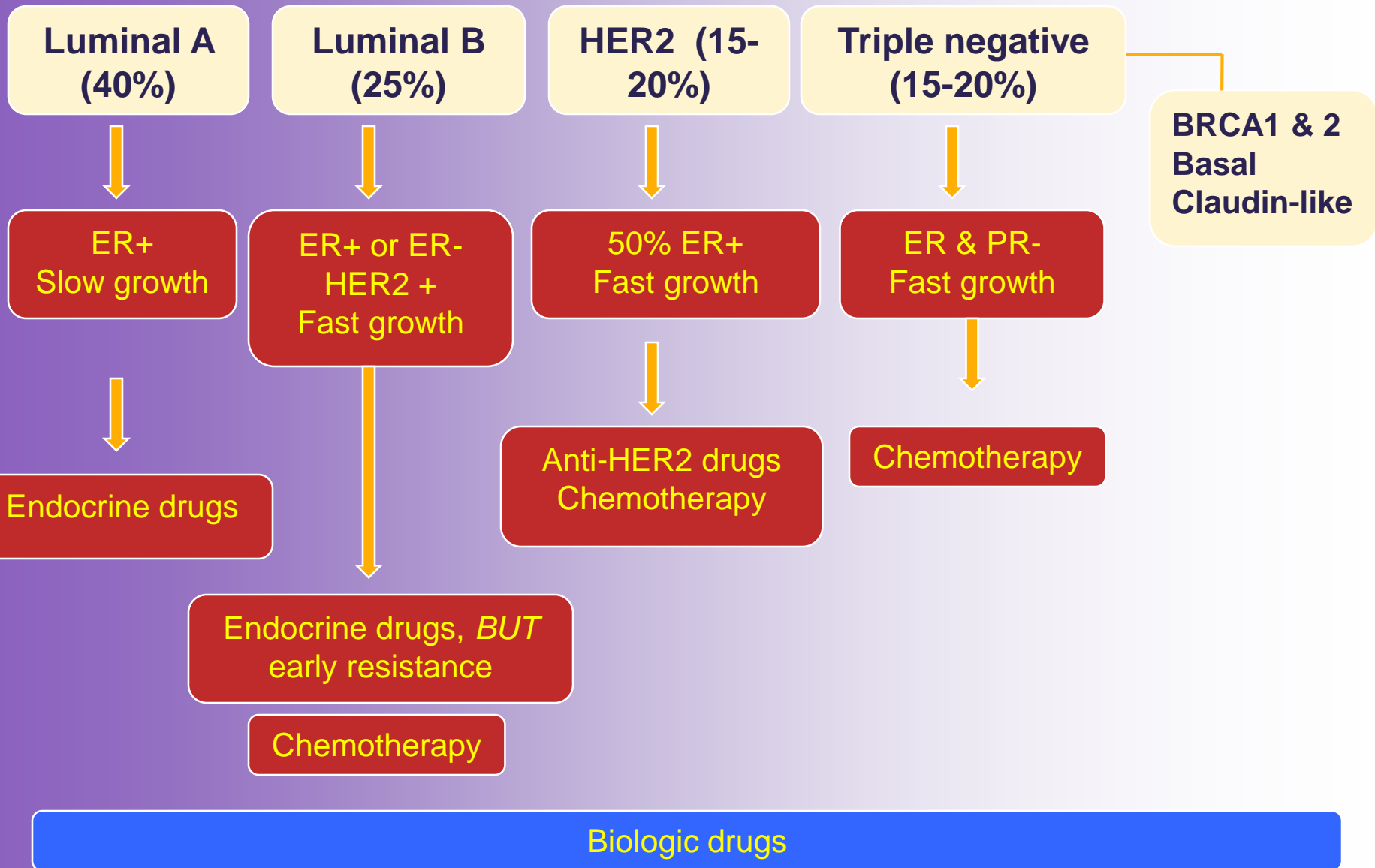
A Cell

you have trillions of cells



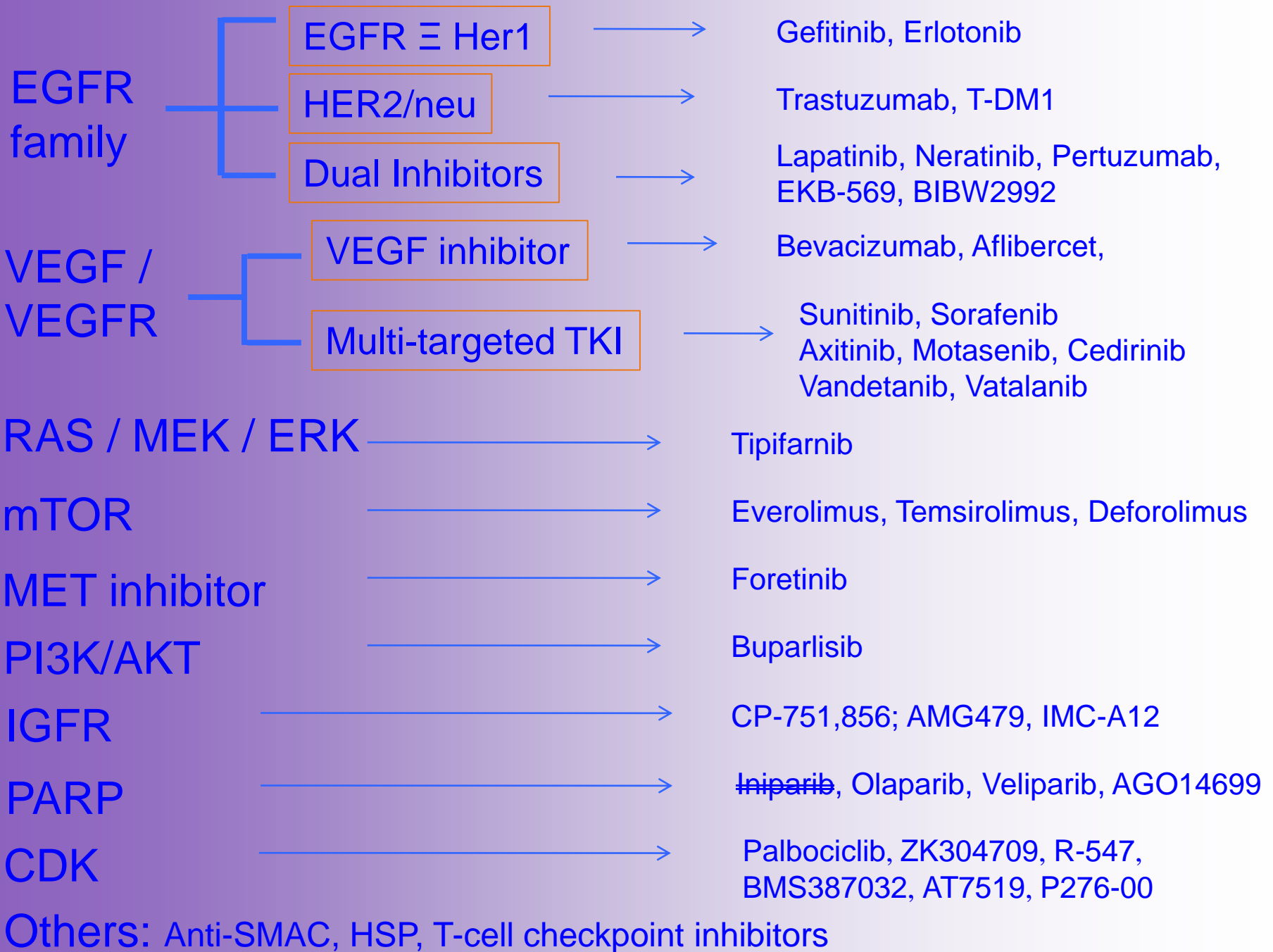
Every cell has bazillions of enzymes

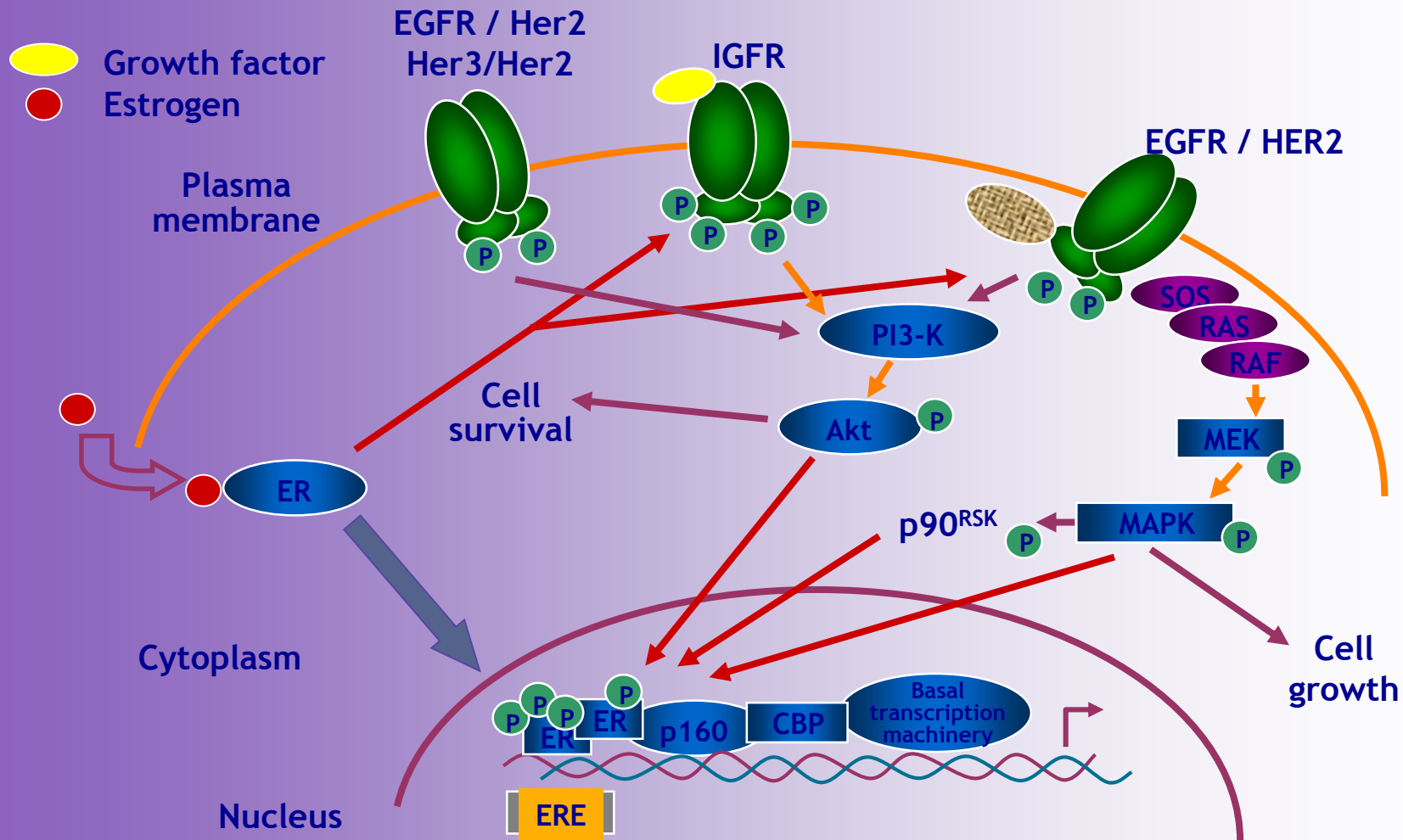
Different sub-types of breast cancer

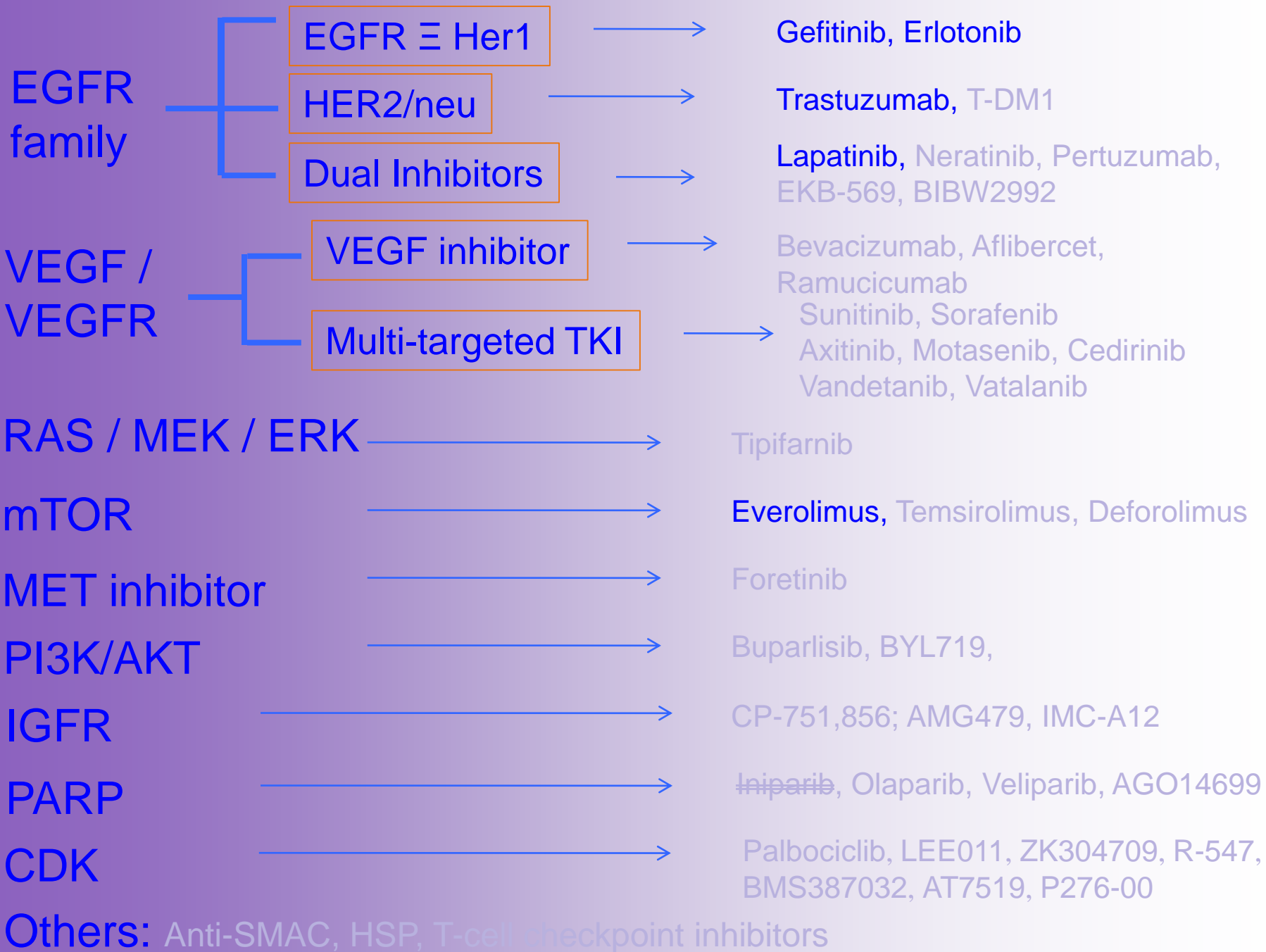


Drugs to treat breast cancer

- Endocrine: Tamoxifen, Anastrozole, Letrozole, Exemestane, Fulvestrant
- Chemotherapy - many
- Biologics
 - Aim to be targeted -> more effective, less side effects
 - Aim to be tailored for individual breast cancers
 - Less traditional side effects
 - Developed from 'translational' research







'Good & Bad' of drug treatments

GOOD

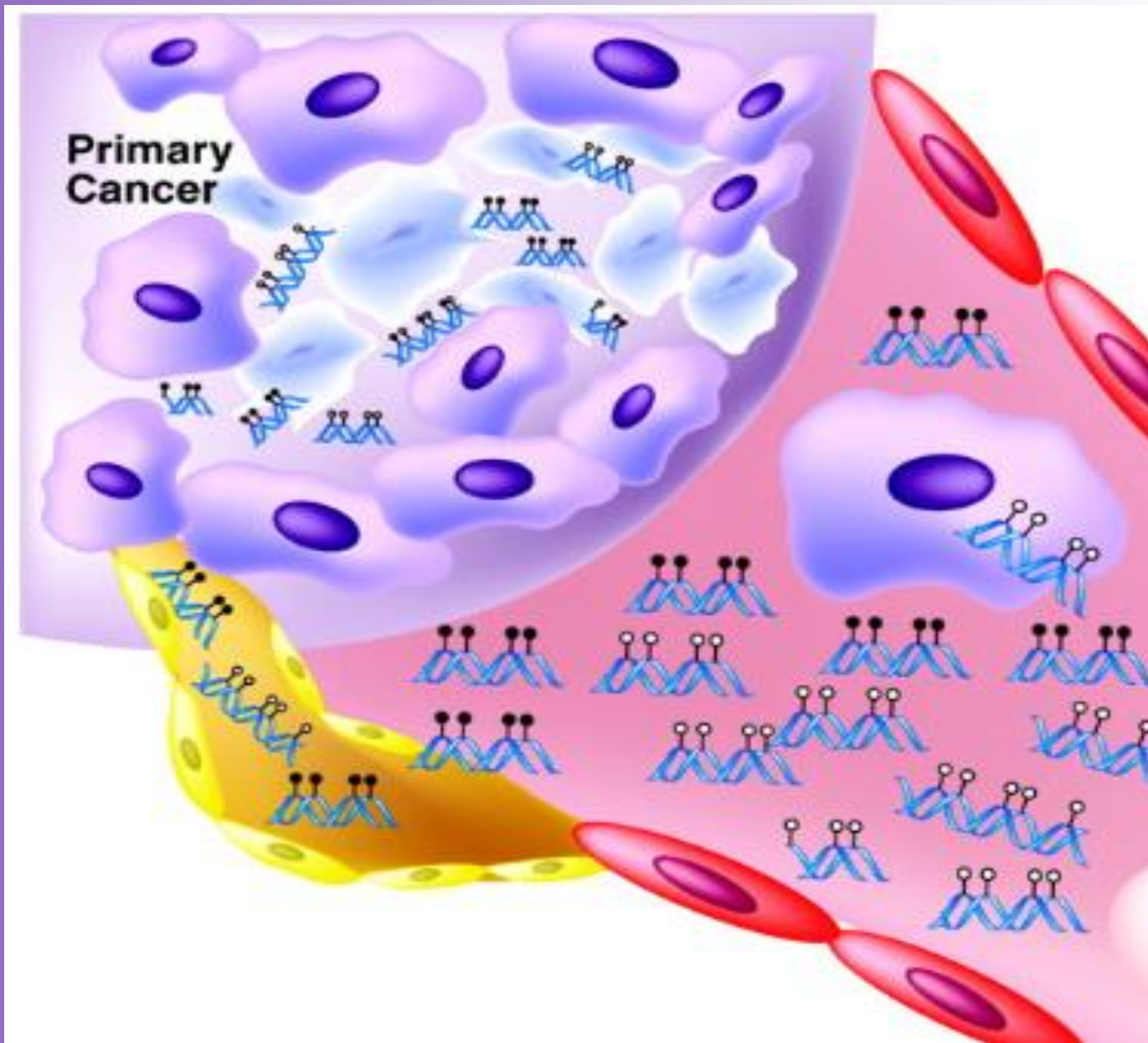
- Targeting cancer cell ^{BE}
- Credible - well conducted research ^{CBE}
- Less (*different*) side effects ^{BE}
- Long term use -> control ^{BE}
- Tablets ^{BE_c}
- Many lines of treatment ^{CBE}
- Supportive medications available

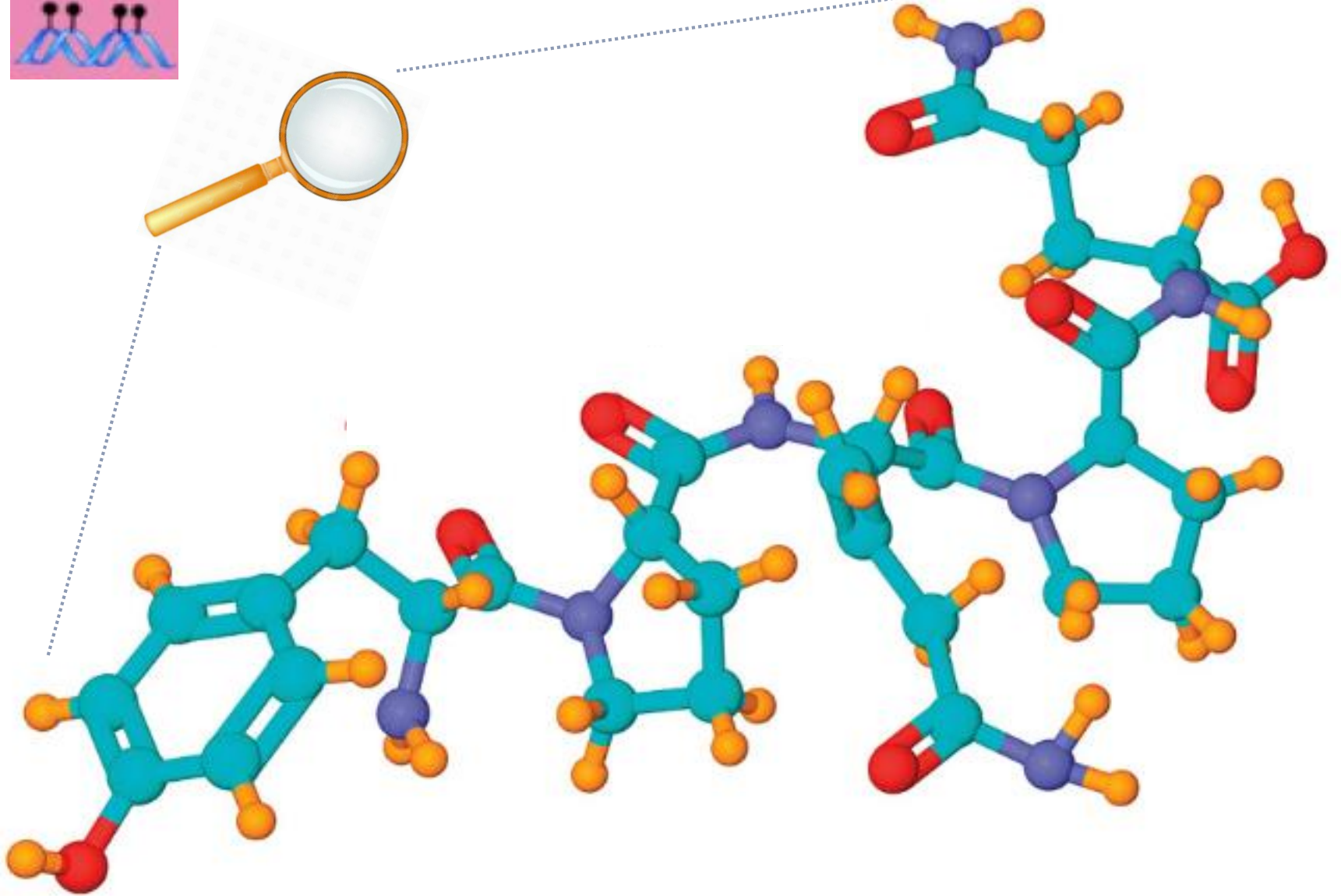
BAD

- Time to develop biologics
- Cost
- Availability
- No guarantee of effectiveness
- May not work on all secondaries

Tumour marker

- What is it?
- Do all cancer patient have them?
- What do they do in the body?
- What does it mean if it goes up / goes down?
- Why aren't they used in early breast cancer ?
- If elevated, how 'dangerous' is it?





Tumour marker

- Breast cancer: CA15-3, CA27.29
- Prostate cancer: PSA
- Ovarian cancer: CA125
- Bowel cancer: CEA
- Pancreatic cancer: CA19-9
- Lymphoma: LDH
- Testicular cancer & others

Tumour marker

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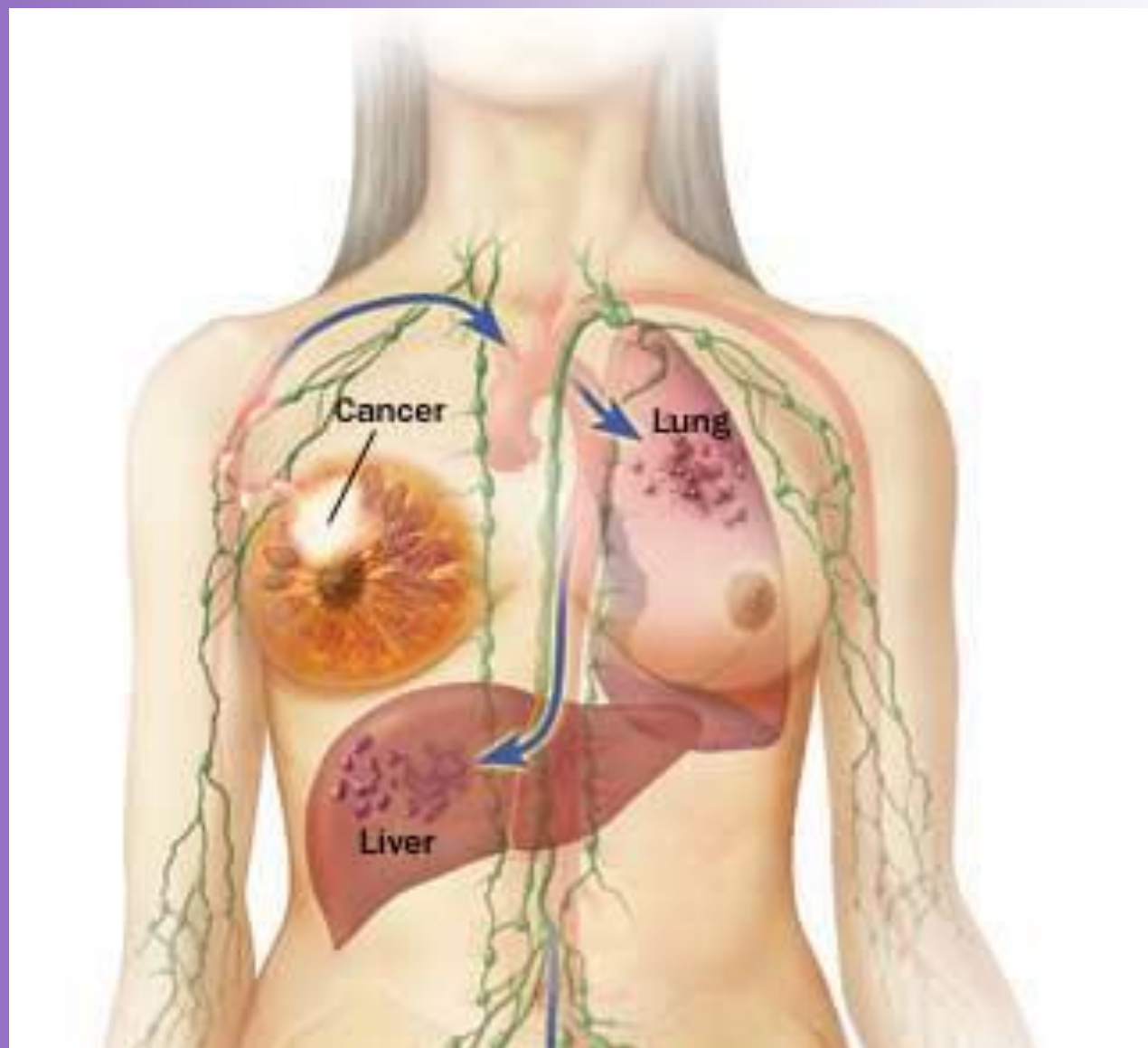
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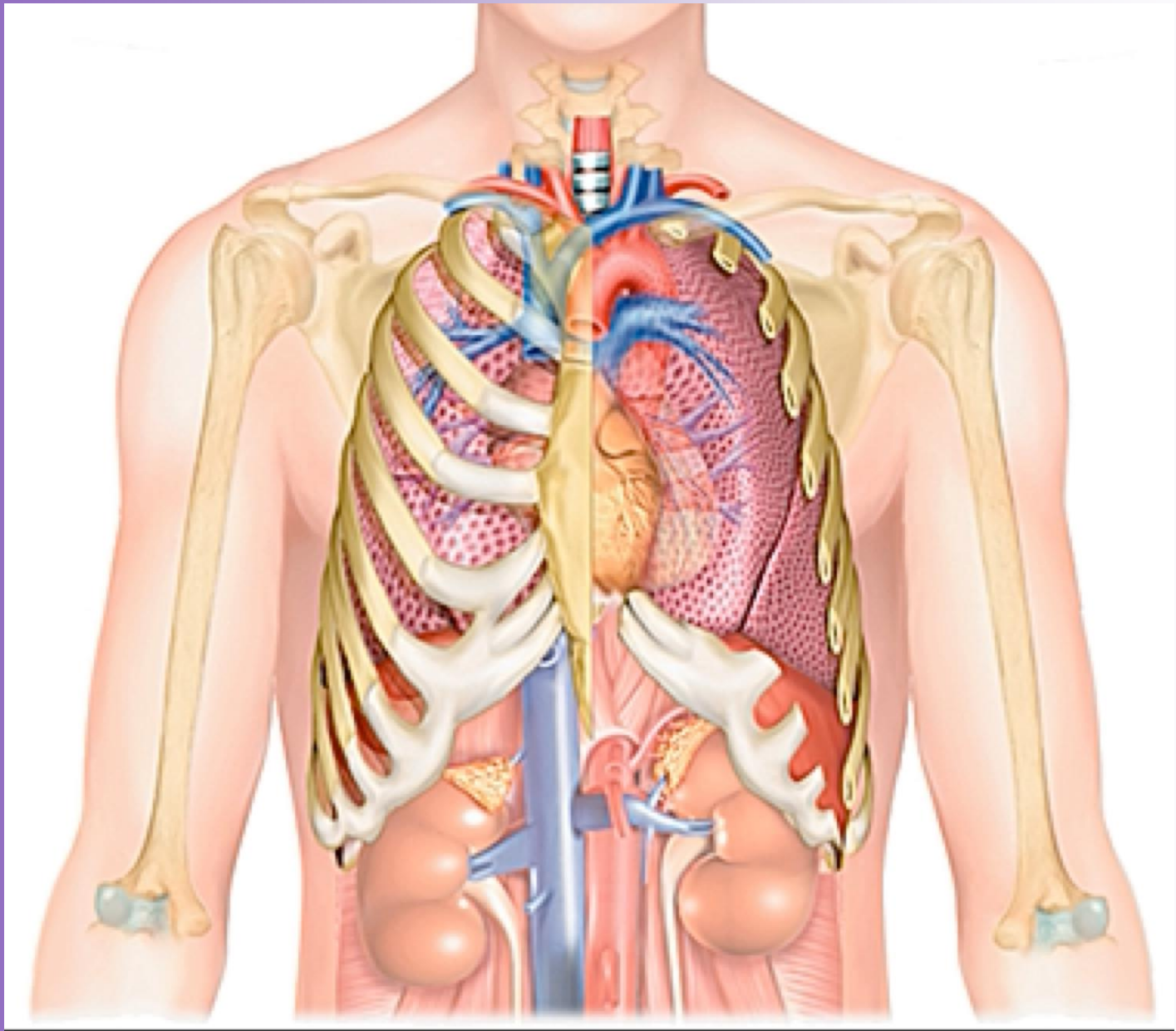
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Scans: CT/ Bone / MRI / PET / US / Xrays

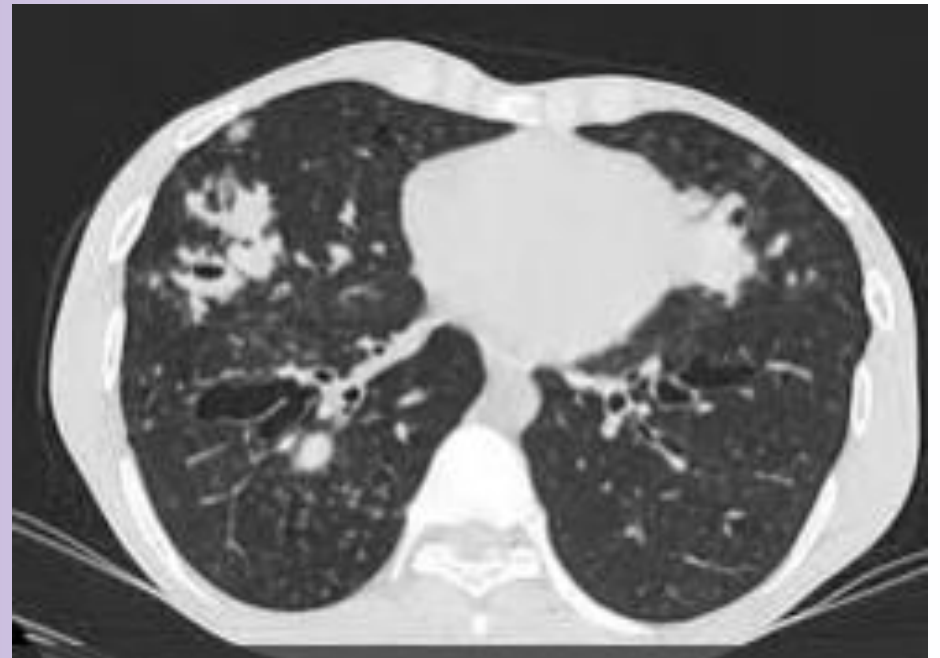
- What is purpose of doing scans?
 - Identify where metastases are
 - Assess volume of metastases
 - Identify if metastases are in 'dangerous' site
 - To assess effectiveness of treatment****
- How often should they be done?
- What determines which scan?

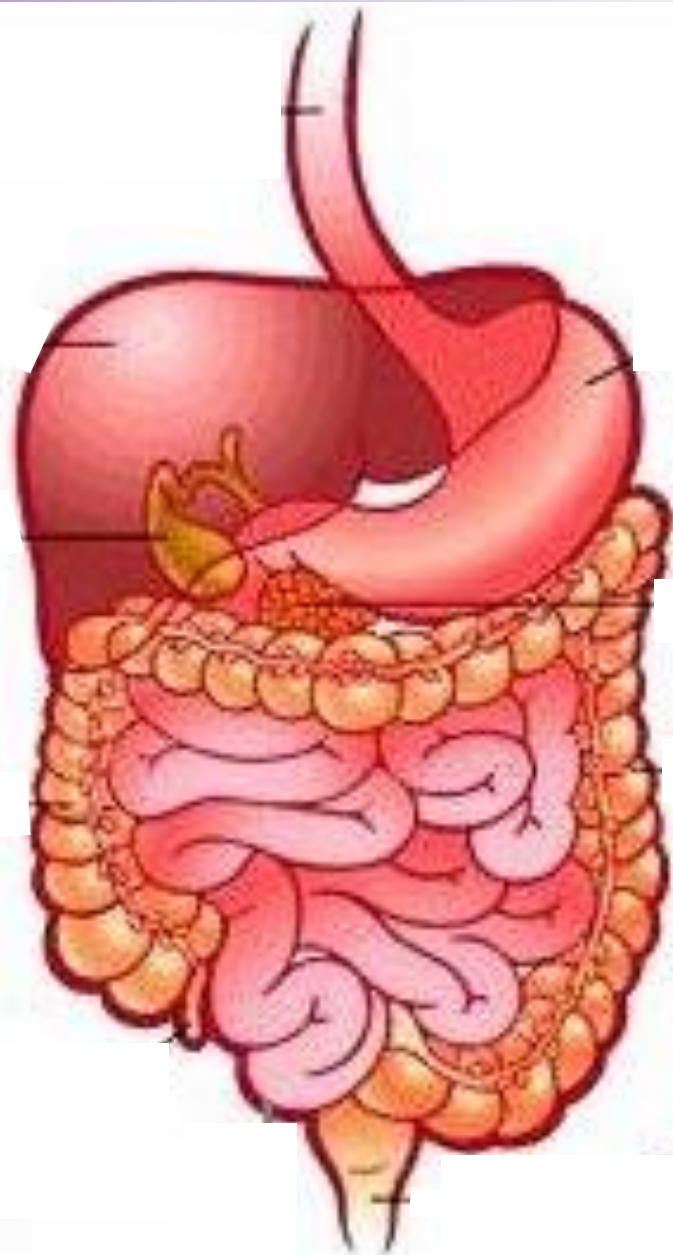






CT scan

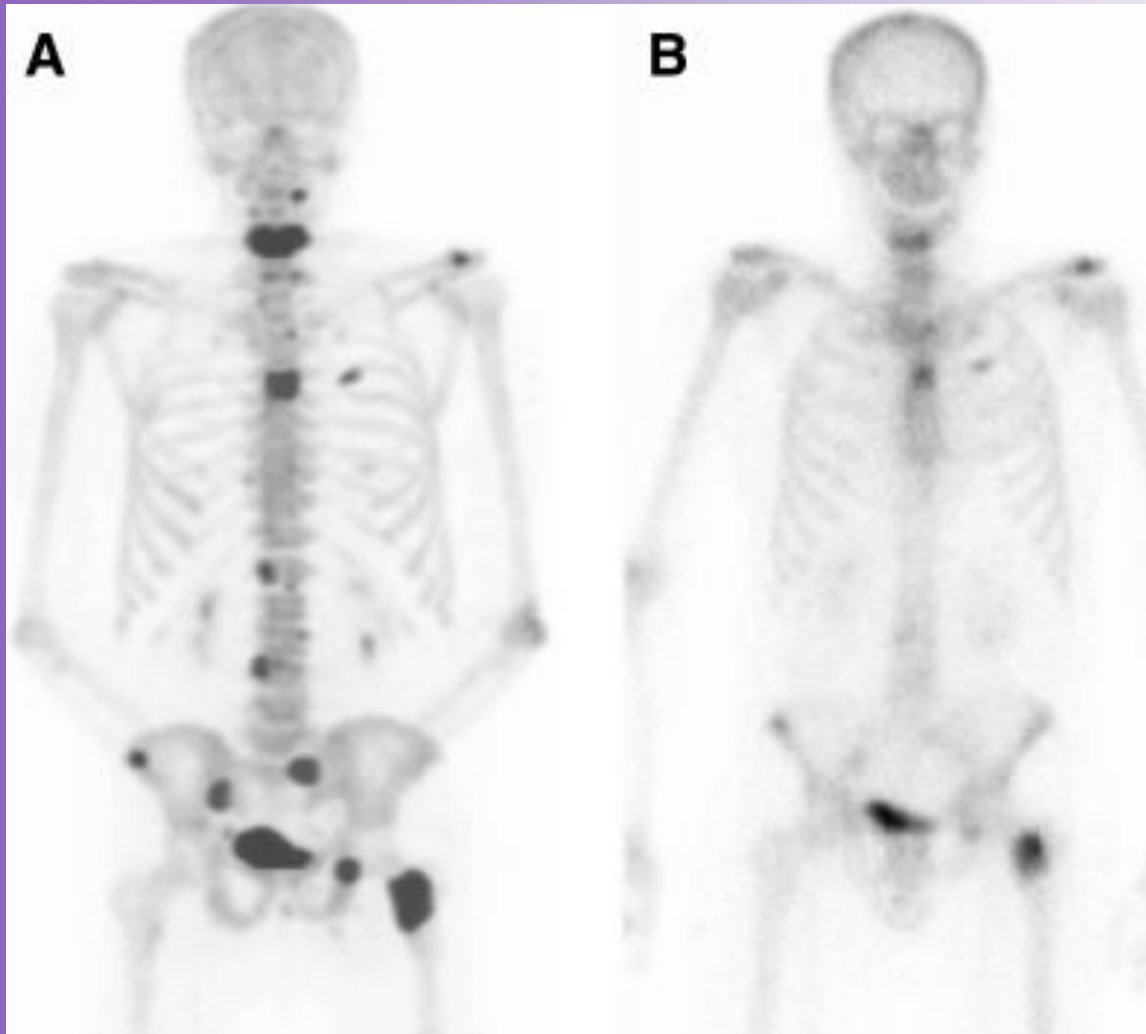




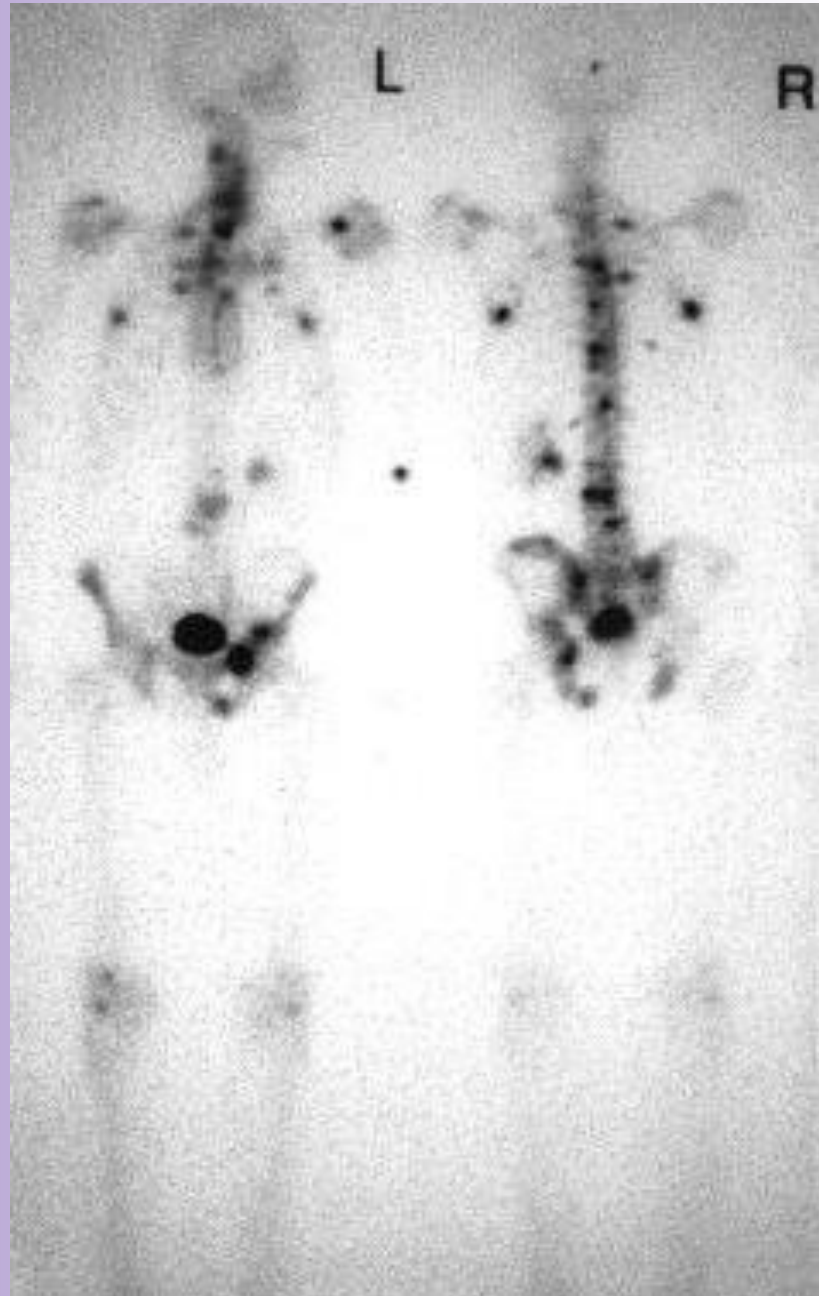
CT scan



Bone scan



Bone scan

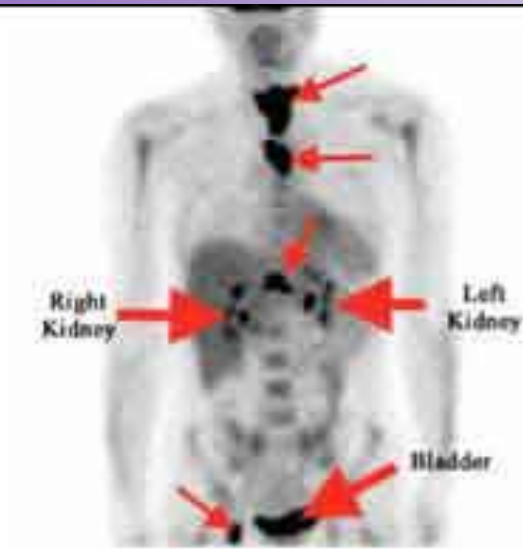


MRI scan



Good for spine, brain, bone

PET scan



Conclusions

- Touched on some aspects of MBC
- Research is of vital importance
 - Well considered and properly conducted research
 - Encourage participation: patients & doctors
 - Adequate funding
 - Valid analysis and reporting of results

Questions?