Integrating clinicopathological and molecular data in the breast cancer patient : towards precision medicine

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Stellingen

behorend bij het proefschrift

Integrating clinicopathological and molecular data in the breast cancer patient

Towards precision medicine

1. Immunoediting generates breast tumors capable of immune escape, which leads to cancer progression and worse clinical outcomes *(This thesis)*

2. Breast tumor IGF1 receptor status has proven a promising marker for the treatment of hormone receptor positive breast cancer patients. Time will tell whether it will also be of great value in the aging cancer population due to the mild adverse events of metformin treatment *(This thesis)*

3. The dual role of HIF-1 in both cancer and aging may explain why the greatest risk of cancer is age *(This thesis)*

4. TNM staging does not provide an optimal prognostic and treatment decision-making-model and therefore should be complemented with tumor (bio)-markers and patient characteristics to achieve personalized treatment *(This thesis)*

5. To provide the most adequate breast cancer treatment per individual, the practitioner should loosen the reins on strict guidelines, moving further away from the "one-size-fits-all" concept and strive for tailored treatment

6. It is argued that an inventory of feedback and crosstalk circuits between signaling pathways will be instrumental in finding the right drug combinations for each individual patient. Our lack of understanding of the way in which signaling networks interconnect represents a critical missing link in realizing the ultimate goal of personalized medicine *(Bernards R, Cell. 2012 Oct 26;151(3):465-8)*

7. If age-related metabolic changes are an early driver of tumorigenesis, molecules that prevent and reverse metabolic aging may be useful as cancer therapies. Given the key role of sirtuins in tumorigenesis, it is feasible that lifestyle interventions and small molecules that activate sirtuins could induce a youthful metabolic state and serve to prevent and treat cancer *(Wu LE, Cancer Cell. 2014 Jan 13;25(1):12-9)*

8. Surgical oncology, medical oncology and radiation oncology, also known as "the big three" players in (breast) cancer treatment will soon become "the big four", as the interventional radiologist is progressively becoming the treating physician of choice for patients who are less suitable candidates for surgery

9. The good thing about science is that it's true whether or not you believe in it *(Neill deGrasse Tyson, Twitter, 2013)*

10. In science we abide by: 'Quod gratis asseritur, gratis negatur'*(Anonymous)*

11. Het hospitaal is een noodzakelijk kwaad, hoe meer men er buiten houdt hoe beter het eraan toe gaat *(Dr. C.J.H.Engels)*

12. No guts, no glory *(Major Gen. Frederick C. Blesse, fighter tactics book US Airforce, 1955)*

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