Επιστημονική Εταιρεία «Каркіvos: Екпаібеиап. Ερευνα & Κηινική Πράξη»

Σε συνεργασία:

- Επληνική Εταιρεία Νευροενδοκρινών Όγκων
- Ιατρική Εταιρεία Έρευνας και Εκπαίδευσης
- Α΄ Παθολογική-Ογκολογική Κλινική, Γ.Α.Ο.Ν.Α. «Ο Άγιος Σάββας»
- Паводоужń-Оукодоужń Кдилкń, Е.А.Н.П. «Метаξά»
- Ομάδα Νέων Ελλήνων Ογκολόγων (ΟΝΕΟ)

#### ΣΥΝΕΔΡΙΟ

Από τη Χημειοθεραπεία στη Μοριακή



21°s aıwvas: από την ανθοφορία στη συγκομίδή







6-7 ΔΕΚΕΜΒΡΙΟΥ 2019 Aθńva Crowne Plaza Athens

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αντι-αγγειογενετικοί

παράγοντες

& ακτινοθεραπεία

 more than half of cancer pts undergo RT at some stage during their treatment

curative intent

palliative

 improved clinical benefit of radiotherapy understanding radiobiology technical advancements

technical advancements

intensity modulated radiation therapy (IMRT) volumetric modulated arc therapy (VMAT) image guided radiation therapy (IGRT) respiratory gated radiation therapy proton beam therapy



- hypofractionated radiotherapy
- stereotactic radiotherapy

understanding radiobiology

5 + 1 R's of radiotherapy:

**Repair**: by applying fractionated RT, normal cells have the opportunity to repair sublethal DNA damage between each fraction while cancer cells are unable to sufficiently repair DNA damage due to defective or suppressed repair pathways

**Redistribution**: Fractionated RT increases the chance that cells that were in a radioresistant phase

**Repopulation**: the increase in cell division that is seen in normal and cancer cells after

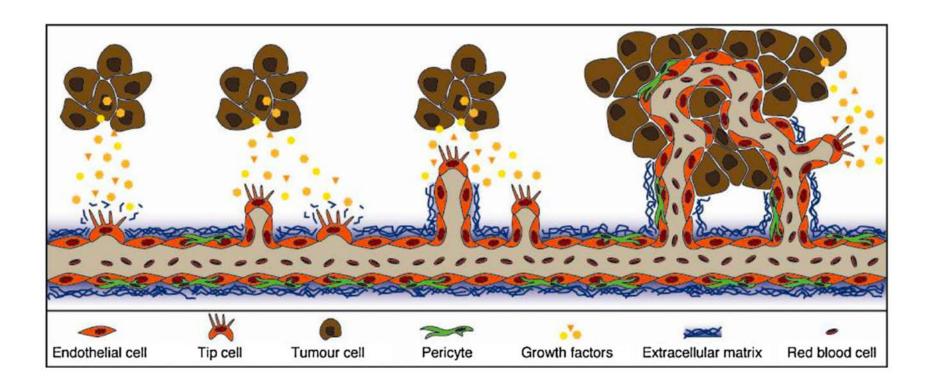
**Radiosensitivity** refers to the intrinsic radiosensitivity or radioresistance of different cell types

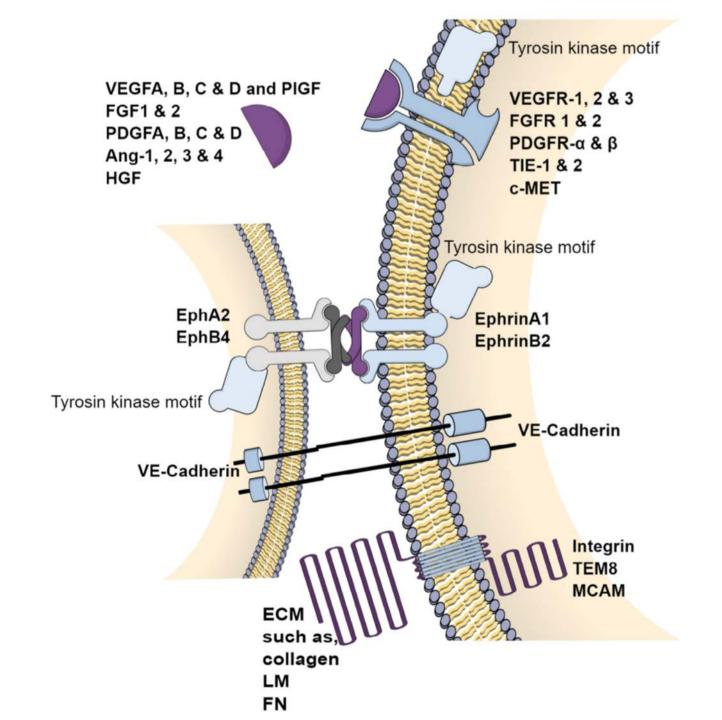
**Reoxygenation** is related to the dynamic and changing hypoxic status of tumor tissue. Fractionated RT increases the chance that all areas of the tumor tissue receive a dose of irradiation when oxygenation is improved

**Reactivation** of the anti-tumor immune response

# angiogenesis and cancer therapy

#### tumor angiogenesis





Bevacizumab Humanized monoclonal anti-VEGF-A antibody

Ziv-aflibercept Fusion protein against VEGF-A, VEGF-B and PIGF

Sorafenib Multi-tyrosine kinase inhibitor

Sunitinib Multi-tyrosine kinase inhibitors

Axitinib Receptor tyrosine kinase inhibitor

Nintedanib Receptor tyrosine kinase inhibitor

Regorafenib Receptor tyrosine kinase inhibitor

Pazobanib Receptor tyrosine kinase inhibitor

Cabozantinib Receptor tyrosine kinase inhibitor

Vandetanib Receptor tyrosine kinase inhibitor

Thalidomide Inhibitor of Akt phosphorylation

# radiotherapy and hypoxia