



FOUNDATIONS OF INTEGRATIVE ONCOLOGY

Module 4 Toolbox: Therapeutic Interventions & Immue Modulation

Lesson 4 Materia Medica: Targeted Nutraceuticals

Learning Objectives – Understand and describe:

- Actions, applications and dosing of:
 - Vitamin D3
 - Probiotics
 - Omega 3 Fatty Acids
 - Melatonin

Vitamin D3

- Modulates cell proliferation and differentiation
- Anti-proliferative
- Induces apoptosis
- Radiotherapy enhancer
- Promotes differentiation and adhesion, decreasing invasion and metastasis

Probiotics

- Enhances butyrate production
- DNA Histone Deacetylase inhibitor
- Induces apoptosis
- Promotes cell cycle arrest and tumor suppression
- Supports normal inflammation control and hormone metabolism

Omega 3 Fatty Acids > Anti-Inflammatory

- Grass-fed meat, poultry, dairy, eggs; wild-caught cold water fish, walnuts, leafy greens, flaxseed, hempseed
- Inhibits tumor growth and angiogenesis, complements RT & CT, promotes apoptosis
- Chemosensitizer, radiosensitizer, promotes estrogen metabolism and insulin sensitivity

Omega 6 Fatty Acids > Pro-Inflammatory

- Commercially raised meat, poultry, dairy, egg yolk; Nuts, seeds, vegetable oils
- Foster growth and progression, promote angiogenesis, suppress immune function

Melatonin

- Direct antioxidant, induces apoptosis, supports DNA repair, modulates proliferation, increases NK cells
- Melatonin secretion impaired in patients with breast cancer, endometrial cancer, or colorectal cancer

References

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