Dermal Pharmacology & Toxicology
Course Syllabus (Biol 6756)
Fairleigh Dickinson University: Spring Semester 2013, Dickinson Hall; Room 1165
Professors: Linda D. Rhein, M.S. & Ph.D. and Svetlana Babajanyan, M.D. & J.D.

Tentative Schedule
Jan. 30th Skin Structure & Function, Skin Appendages, Cornified Envelope, Stem Cells, Skin Lipids

Feb. 6th Surfactant Action on Skin, Bar Soaps

Feb. 13th Skin Moisturization, Skin Instrumental: TEWL, Cutometer (Conductance/Capacitance, and Prolifometry/Skin Replica; Other Assessments (Comedogenicity, DeSquames, Skin color, Residue, Sensory)

Feb. 20th Melanogenesis, Tanning/Whitening (Skin Lighteners), Hair Structure and Function, Alopecia

Feb. 27th Aging Skin (Intrinsic & Chronological Aging), Mechanisms (Free Radicals/Antioxidants & UV Damage/Photocarcinogenesis, MMPs, Transforming Growth Factor Beta, Estrogens, Angiogenesis)

Mar. 6th Midterm Exam

Mar. 13th Spring Break (no classes)

Mar. 20th Aging Skin - Treatment Strategies: Sun Damage and Sunscreens, Retinoic acid, BoTox, Chemical Peels, Laser Treatments, Naturals, Dermal Fillers

Mar. 27th Immunology, Irritation and Allergic Contact Dermatitis, In Vitro Irritation, Standard Toxicology Tests: Acute (LD50) and Chronic Toxicity, Mutagenicity, Reproductive Toxicity

Apr. 1th In Vivo Safety Testing, Cumulative Irritation (Patch) Testing, RIPT, Photoallergy and Phototoxicity; Alternatives to Animal Testing - Issues EU; Construct for Safety Assessment of Drugs and Cosmetics – Toxicology, Human Testing and Pharmacovigilance processes; Regulations - Cosmetics and Drugs and Rx to OTC Switch

Apr. 8th Skin Pathologies: Ichthyosis (Dry Skin) “Itch”, Eczema, Psoriasis, Fungal Infections, Viral (Warts), Skin Cancers, etc

Apr. 15th Nanoparticles , Antiperspirants, Preservatives, Wound Healing

Apr. 24th Cutaneous Metabolism & Percutaneous Absorption, Skin Pharmacokinetics, Student Presentations

May 1st : Miscellaneous (catch up) and Student Presentations

May 8 Review for final

May 15th: Final Exam

Attendance is mandatory.
Midterm = 45% of total grade
Final = 45% of total grade
Quizzes = 10% of total grade
Papers or presentations can be done but will only count if you are borderline
We can be reached via phone at:
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