

Lecture #	Lecture Title	Lecturer	Behavioral Objectives Participants will:
1	Principles of Teratology	George Daston	<ol style="list-style-type: none"> 1. List the principles of teratology 2. List and describe the four manifestations of abnormal 3. Define the critical periods of development 4. Discuss the mechanisms of developmental toxicity
2	Pharmacokinetics/Drug Metabolism	George Daston	<ol style="list-style-type: none"> 1. Describe the absorption of chemicals across different surfaces 2. Discuss the volume of distribution and parameters of tissue concentration 3. Distinguish between Phase I and Phase II metabolism 4. Discuss excretion and the kinetics of elimination
3	Pharmacogenetics	Mary Beth Genter	<ol style="list-style-type: none"> 1. Review key concepts in pharmacogenetics 2. Discuss the history of pharmacogenetics 3. Discuss various case examples of polymorphisms in therapy 4. Describe and understand caveats in pharmacogenetics
4	Folates and Neural Tube Defects	William Scott	<ol style="list-style-type: none"> 1. Discuss the formation and timing of neural tube development 2. Describe the major findings from folic acid recurrence studies 3. Explain the metabolic functions of folic acid and folic acid
5	Clinical Overview	Howard Saal	<ol style="list-style-type: none"> 1. Discuss maternal metabolic and genetic disorders 2. Describe the role of physical agents in teratogenesis 3. Describe well studied viral teratogens
6	Thalidomide	William Scott	<ol style="list-style-type: none"> 1. Discuss the thalidomide as a drug used in pregnancy 2. Describe the nature of the limb defects seen with thalidomide embryopathy 3. Contrast the species sensitivity of thalidomide 4. Discuss the various regulatory aspects and current status of thalidomide
7	Anticonvulsants	Robert Hopkin	<ol style="list-style-type: none"> 1. Describe the major and minor malformations seen with antiepileptic use during pregnancy 2. Discuss the teratogenic effects of specific antiepileptics

8	Diabetes	Brad Tinkle	<ol style="list-style-type: none"> 1. Describe the epidemiology of diabetes in pregnancy 2. Describe the pathophysiology of diabetes during pregnancy 3. Describe the fetal/neonatal concerns of diabetic embryopathy by system 4. Discuss the management and long term risks of pregnancies complicated with diabetes
9	Environmental chemicals	Kim Dietrich	<ol style="list-style-type: none"> 1. Describe the neurodevelopmental processes subject to toxic insult 2. Discuss the teratogenic effects of various developmental neurotoxicants
10	Caffeine Tobacco Reyes Syndrome Prozac Ibuprofen Maternal PKU Hyperthermia	<ol style="list-style-type: none"> 1. Victoria Raymond 2. Bethany Vice-Bowling 3. Brandie Heald 4. Katherine Krepkovich 5. Donnice Michel 6. Heather Taylor 7. Erin Acra 	Describe the teratogenic effects of <ol style="list-style-type: none"> 1. Caffeine 2. Tobacco 3. Reye's Syndrome 4. Prozac 5. Ibuprofen 6. Maternal PKU 7. Hyperthermia
11	Therapeutic Drugs	Howard Saal	<ol style="list-style-type: none"> 1. Describe classifications of medications 2. Discuss the teratogenic effects of various prescription medications and drugs used to treat illness
12	Chemotherapeutic Agents Paternal Exposures Lithium in Pregnancy Finasteride Manganese Pesticides	<ol style="list-style-type: none"> 1. Jennifer Fick 2. Christine VanLengen Moskalik 3. Ursula Harkness 4. Zegary Allen 5. Tori Schaefer 6. Misti Williams 	Describe the teratogenic effects of <ol style="list-style-type: none"> 1. Chemotherapeutic agents 2. Paternal Exposures 3. Lithium 4. Finasteride 5. Manganese 6. Pesticides

13	Fetal Alcohol Syndrome	Elizabeth Schorry	<ol style="list-style-type: none"> 1. Describe criteria of a diagnosis of FAS 2. Describe the management of FAS in school aged children, adolescents, and adults 3. Explain the likely mechanism of FAS 4. Discuss screening and prevention of FAS
14	Radiation	William Kassing	<ol style="list-style-type: none"> 1. Review radiation 2. Discuss sources of natural and man-made background radiation 3. Describe the congenital effects of ionizing radiation 4. Describe the hereditary effects of ionizing radiation
15	Behavioral Teratology	Charles Vorhees	<ol style="list-style-type: none"> 1. Discuss organogenesis with respect to the central nervous system 2. Describe Fetal Minimata Disease and the regulatory response that followed 3. Discuss the EPA's Developmental Neurotoxicity Test guidelines and design
16	Retinoids	DJ Lowrie	<ol style="list-style-type: none"> 1. Review retinoids and vitamin A 2. Describe the normal functions of retinoids and vitamin A 3. Describe the clinical applications of retinoids 4. Describe the teratogenic effects of retinoids 5. Discuss current protocols aimed at preventing retinoid
17	Drugs of Abuse	Michael Williams	<ol style="list-style-type: none"> 1. Describe the physiologic effects of various drugs of abuse 2. Describe the teratogenicity of various drugs of abuse
18	Infectious Diseases	DJ Lowrie	<ol style="list-style-type: none"> 1. Review common congenital infectious diseases 2. Describe the patterns of fetal injury associated with congenital infections 3. Review strategies relevant to prevention, treatment, and counseling
19	Hormones	Andrew LaBarbera	<ol style="list-style-type: none"> 1. Contrast the actions of estrogens, progestins, and androgens 2. Describe the control of sexual differentiation by steroid hormones 3. Explain how endocrine disruptor chemicals can alter development and function of the reproductive system 4. Give examples of the teratogenic effects of abnormal environmental exposure to reproductive endocrine disruptors