



CONTINUING EDUCATION IN TOXICOLOGIC PATHOLOGY REPRODUCTIVE SYSTEM

Third Conference

ORGANIZED BY SOCIETY FOR TOXICOLOGIC PATHOLOGY IN INDIA (STPI)

OCTOBER 29-31, 2010

The Atria Hotel, # 1, Palace Road, Bangalore - 560 001



AURIGENE

Accelerating Discovery



citizen industries



maccine

SIEMENS

Samitek Instruments



Instem™

Information Solutions For Life

MPI
RESEARCH

Customized.
Responsive.
On-Time.™

BIONEEDS
Laboratory Animals & Preclinical Services

SDS
Special Diets Services
customerservice@lloquimen.eu

IKA®

ATNT
Business for Research

A leading research products company in India
An ISO 9001:2000 Company

harlan™
Helping you do research better

Caliber®
Technologies Pvt. Ltd.

intox

torrent

ConneXios

glenmark
A new way for a new world

LABCON
SCIENTIFIC INSTRUMENTS
PRIVATE LIMITED

TOWA

NUTRILAB®

Vishnu Traders

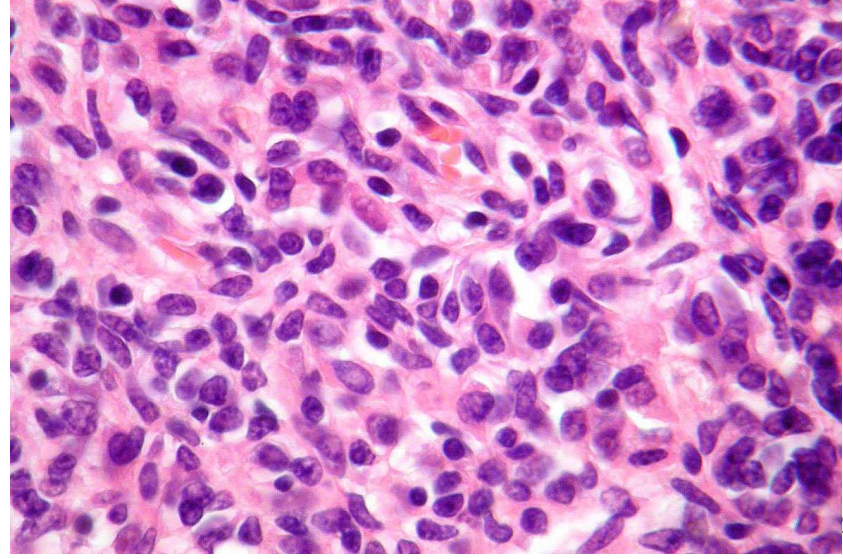
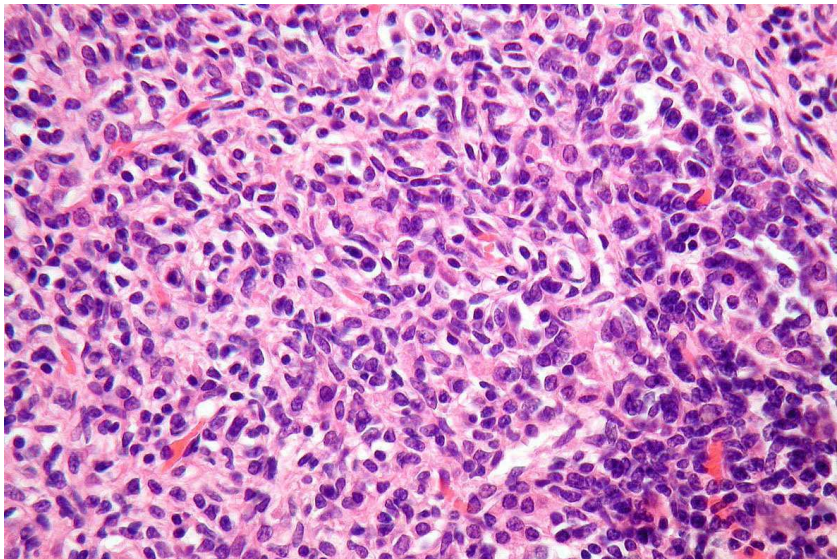
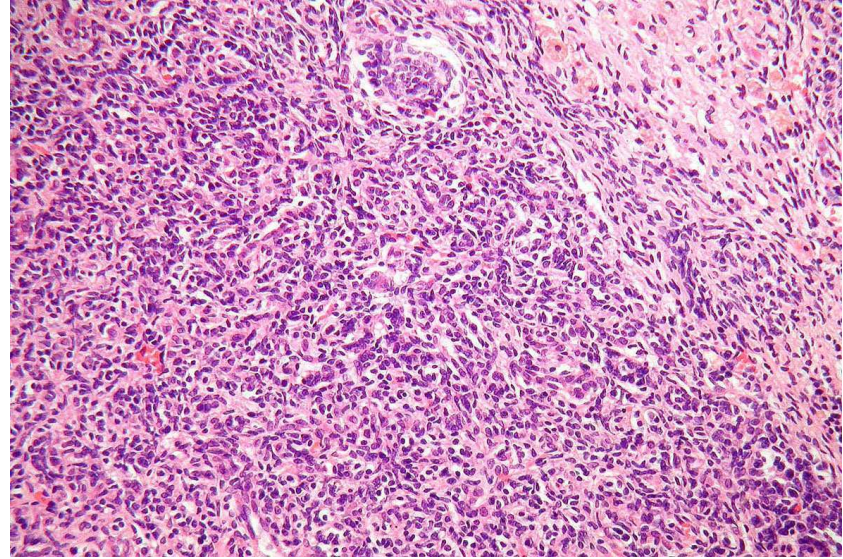
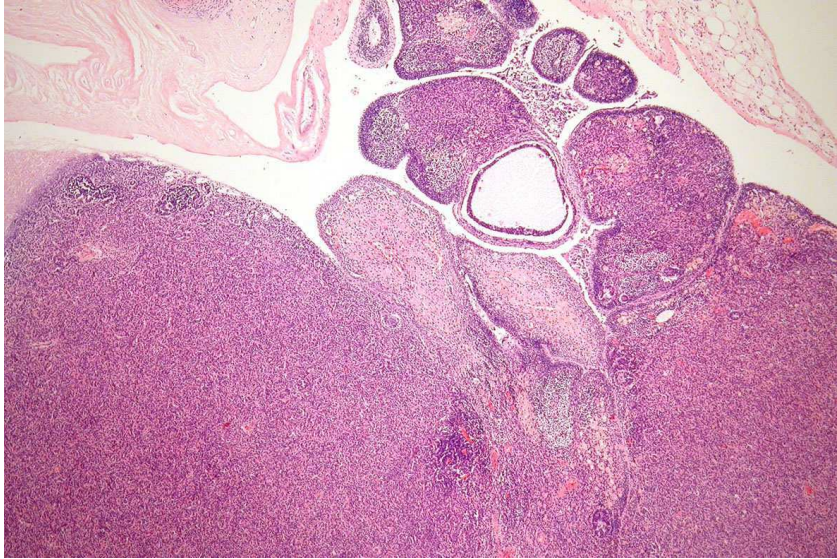


RCC
Linking science to progress

Ovary-Epithelial Neoplasms: Mixed Sex-Cord Stromal Tumor

- **Consist of a mixture of granulosa, theca, sertoli and stromal cells of varying degree**
- **Differential Diagnose: Sex cord stromal hyperplasia, Granulosa cell tumor, Sertoli cell tumor, Thecoma,**

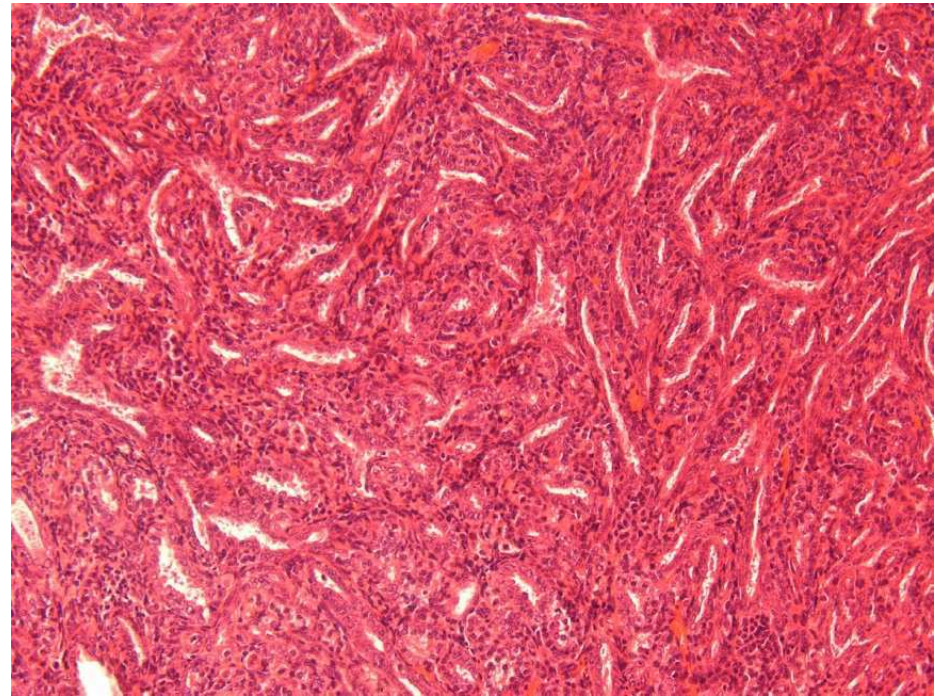
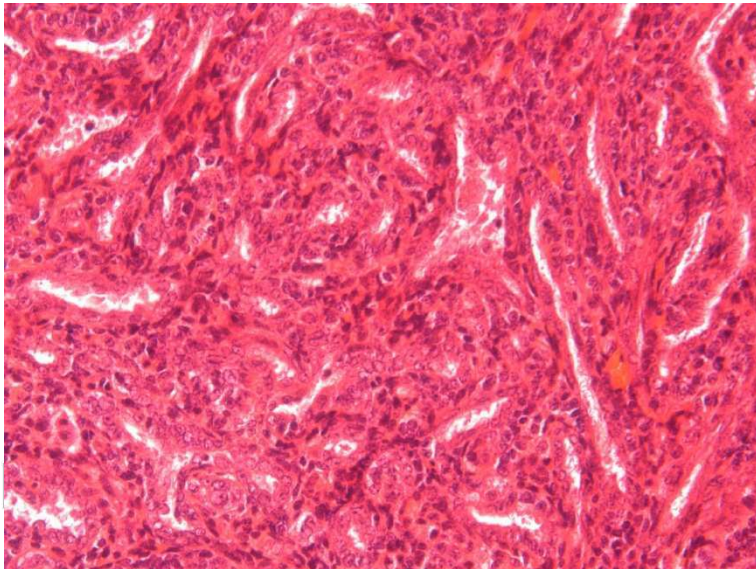
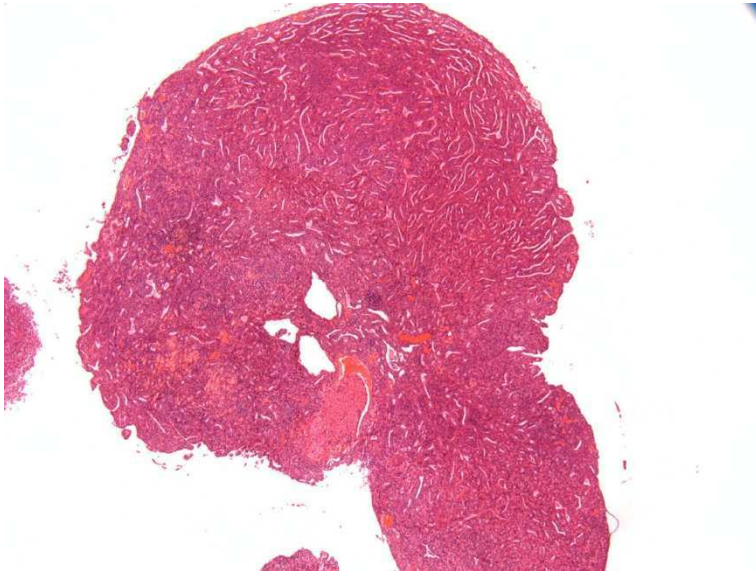
Ovary, Rat: Mixed Sex-Cord Stromal Tumor, benign



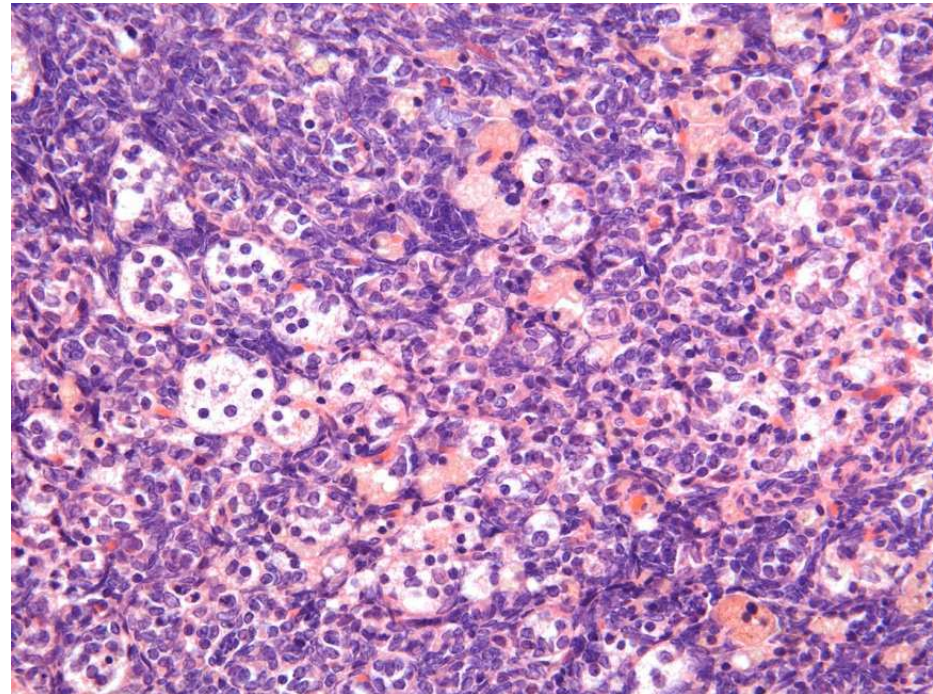
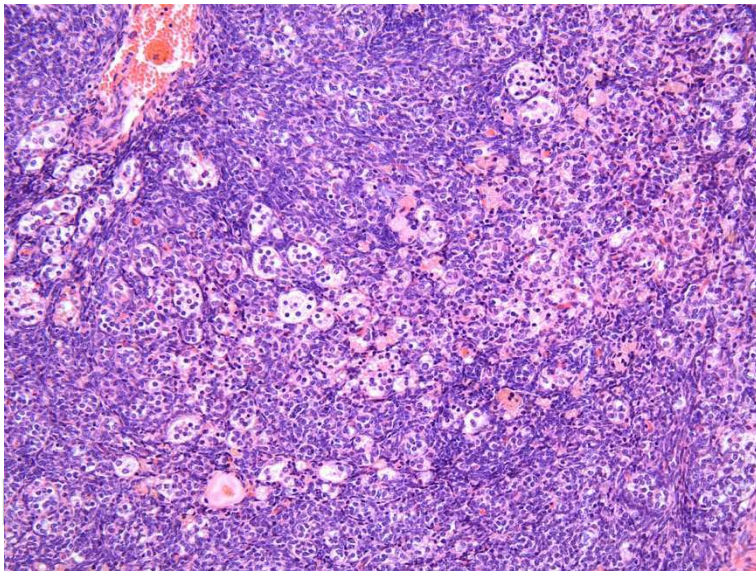
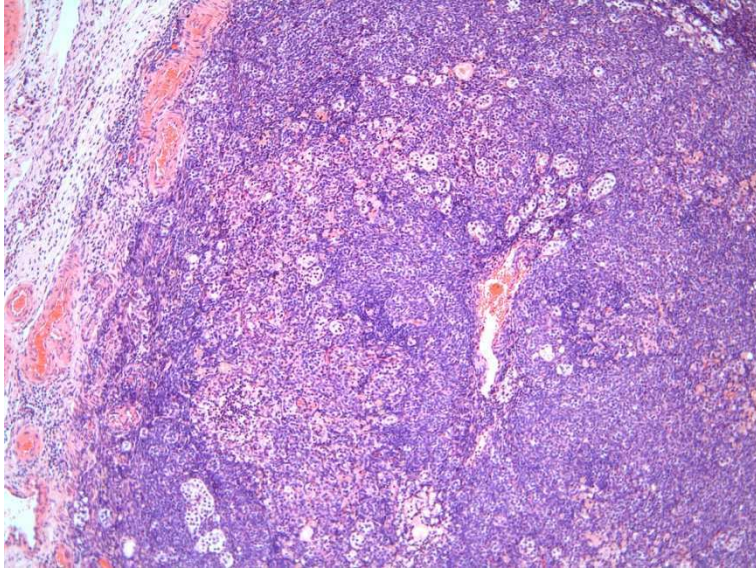
Ovary-Epithelial Neoplasms: Tubulostromal Tumor

- Nodular, usually well circumscribed
- Tubules lined by cuboidal epithelium (resemble mesothelium)
- Tubules separated by packets of cells (sex stromal cord?)
- Occasionally sertoliform structures
- Malignancy: pleomorphism, increased mitosis, necrosis, invasion
- Differential Diagnose: Tubulostromal hyperplasia, Cystadenoma, Cystadenocarcinoma

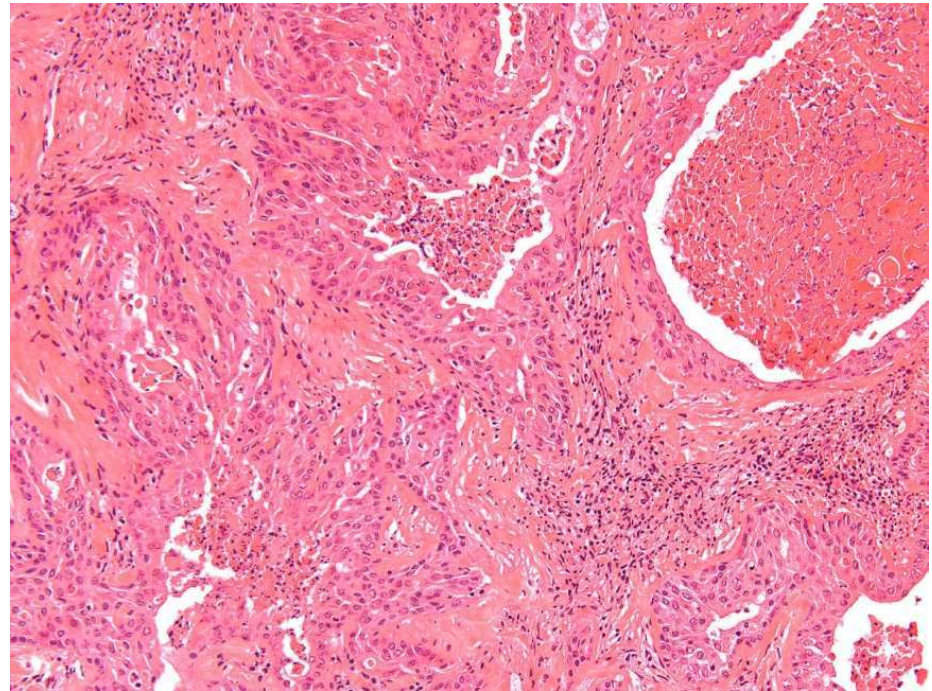
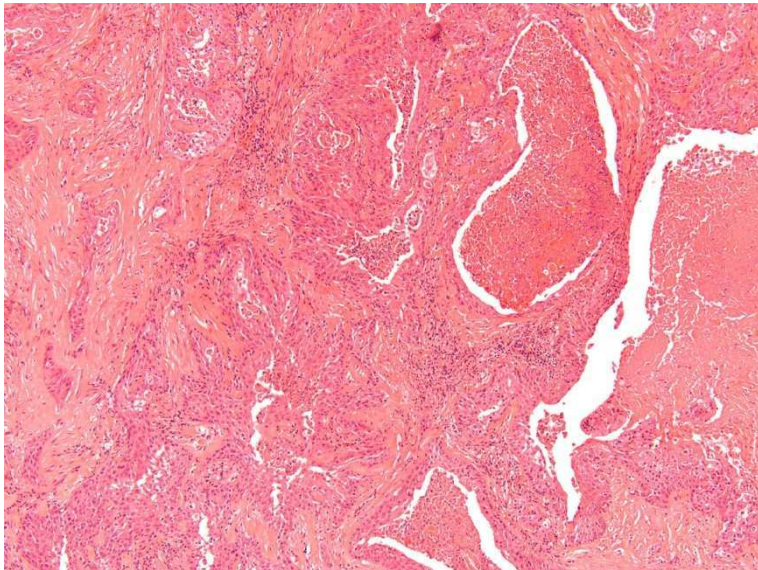
Ovary, Mouse: Tubulostromal Tumor, benign



Ovary, Hamster: Tubulostromal Tumor, benign



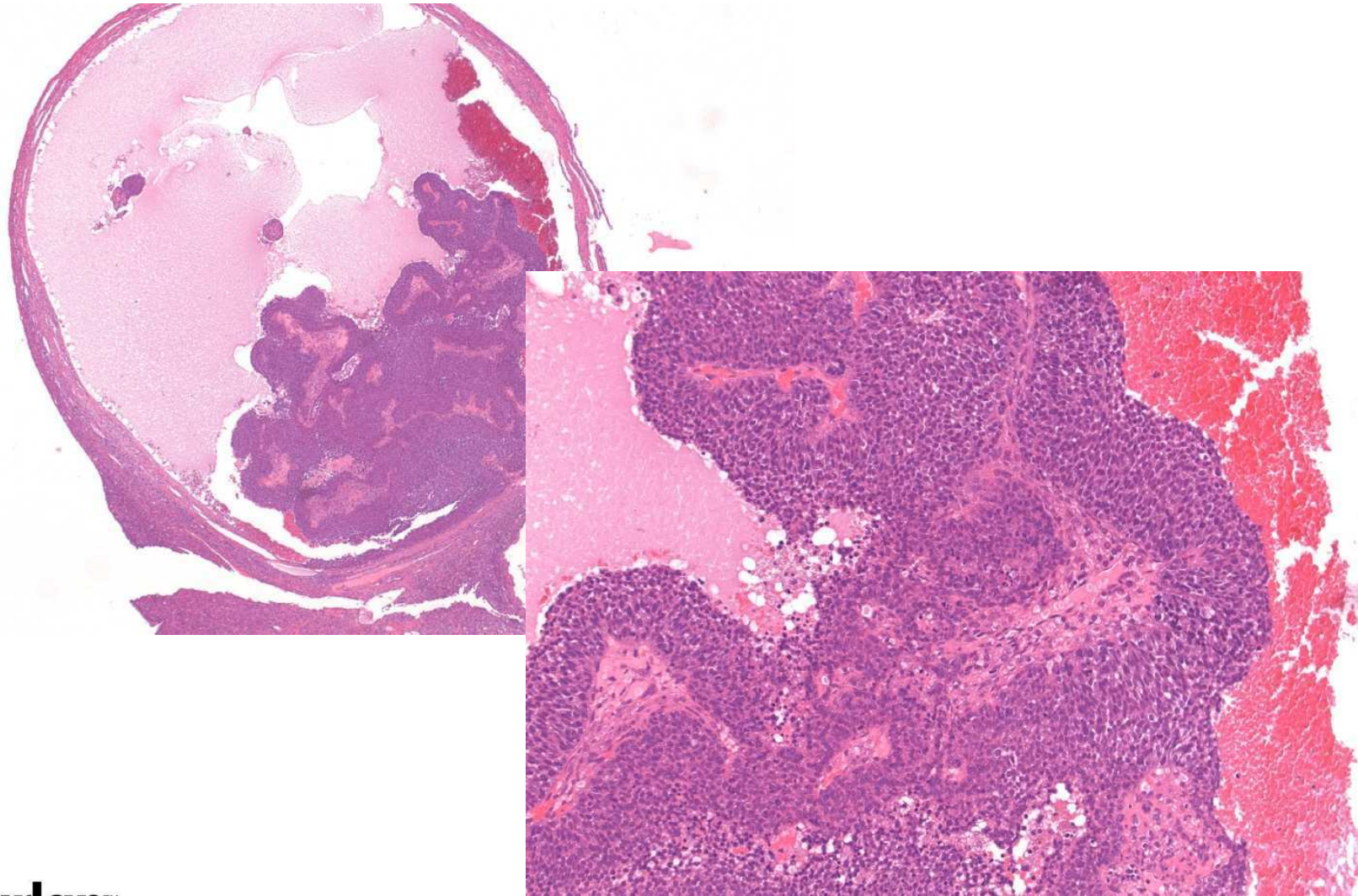
Ovary, Mouse: Tubulostromal Tumor, malignant



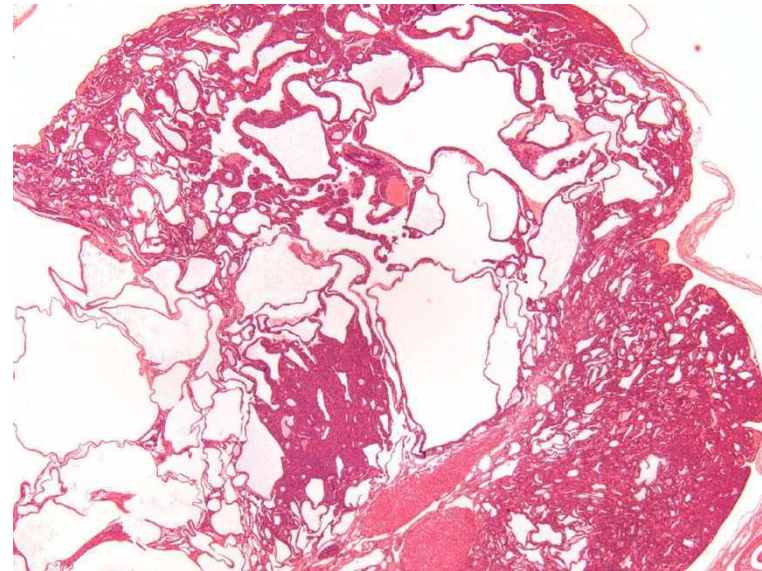
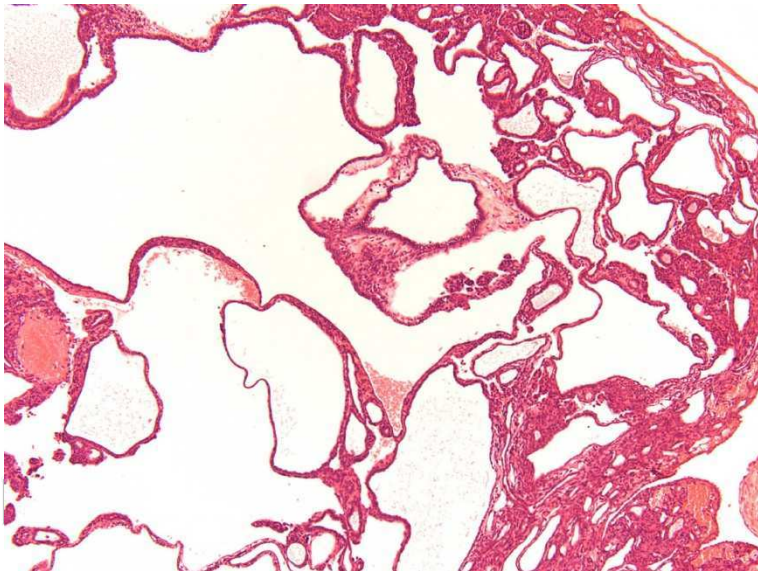
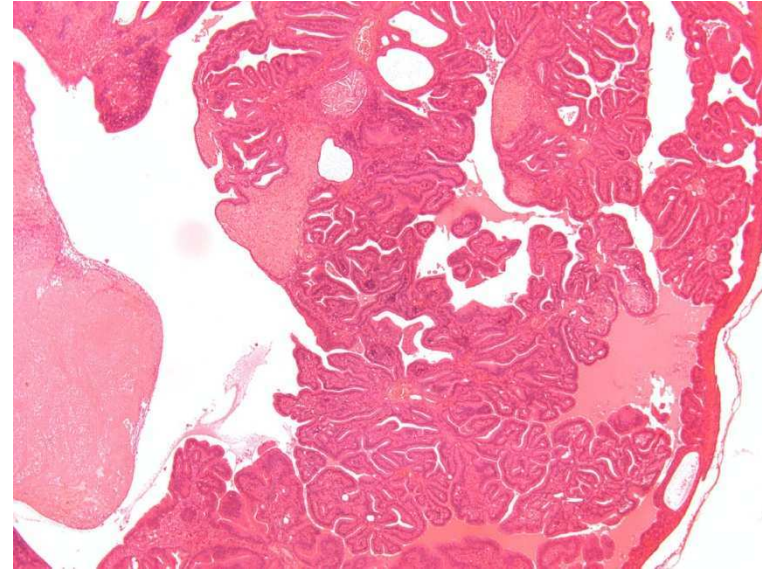
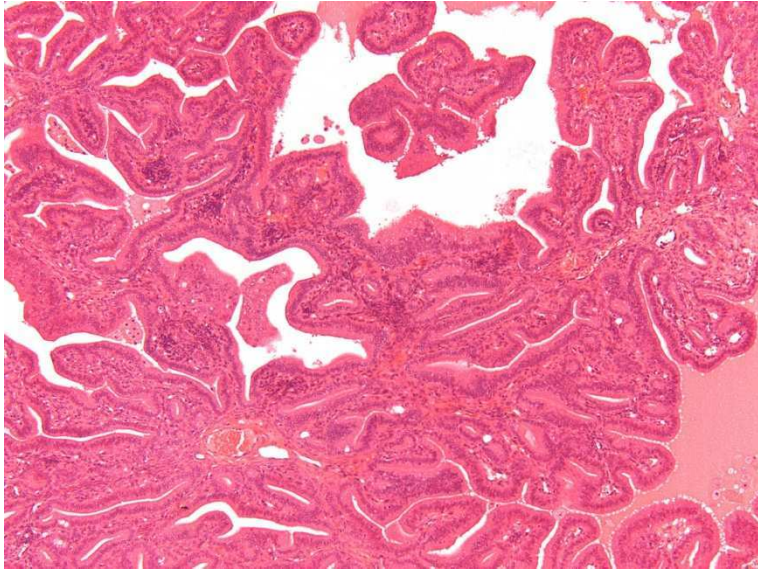
Ovary-Epithelial Neoplasms: Cystadenoma

- Often within cyst lined by cuboidal epithelium
- Folds, projections
- Delicate stroma
- Malignancy: pleomorphism, increased mitosis, necrosis, invasion
- Differential Diagnose: Hyperplasia, Tubulostromal Adenoma and Adenocarcinoma,

Ovary, Rat: Cystadenoma



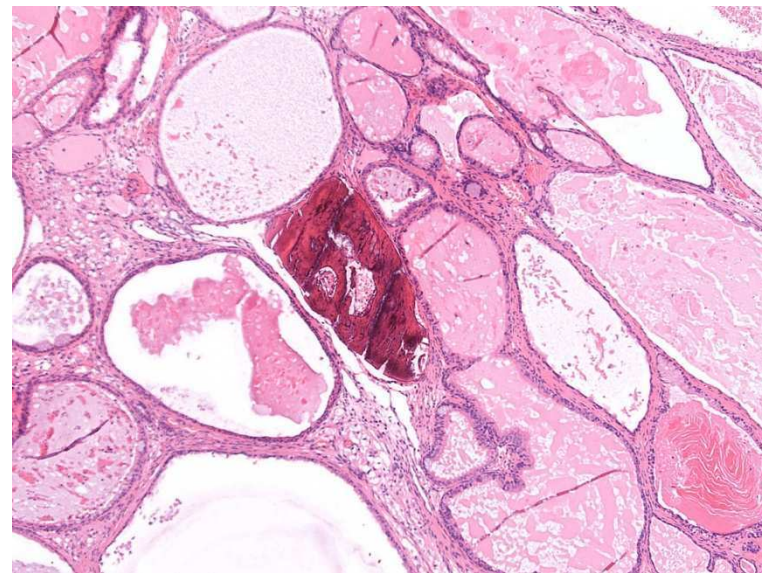
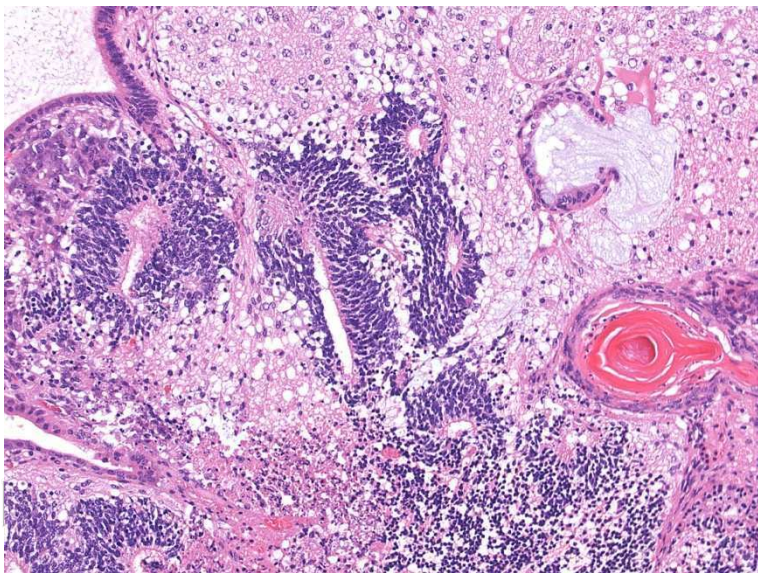
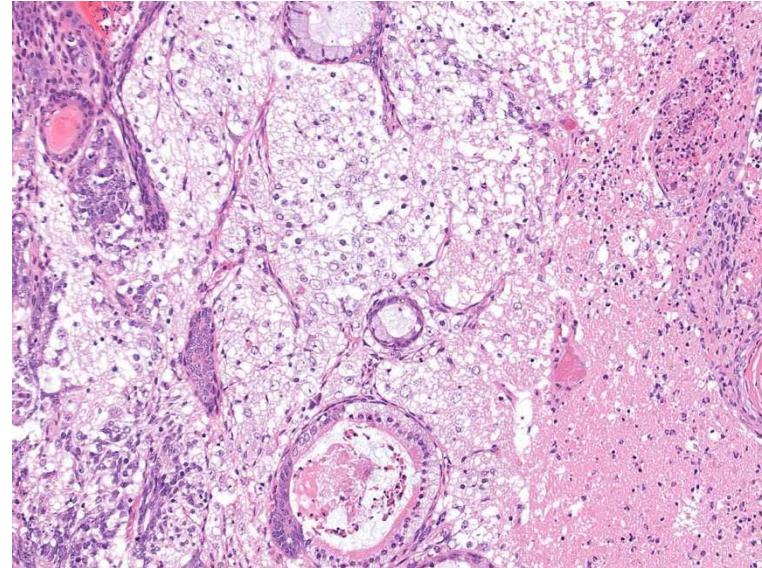
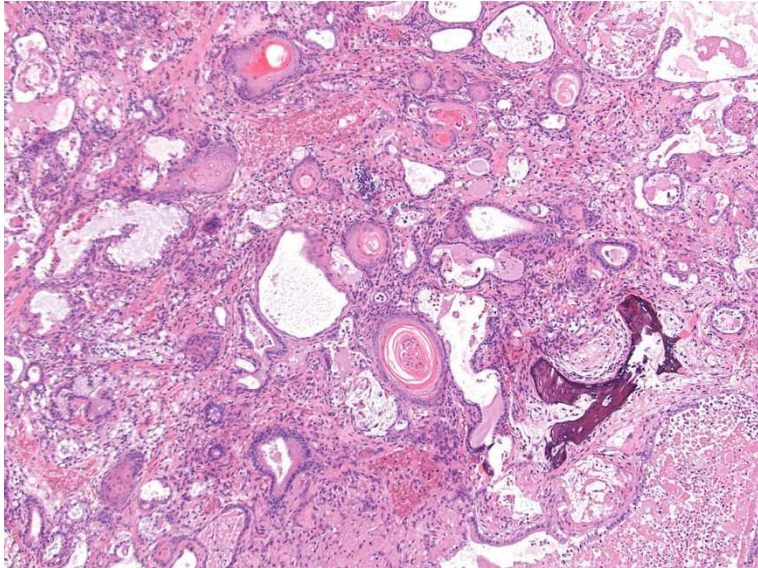
Ovary, Mouse: Cystadenoma



Ovary-Dysgerminoma (Teratoma)

- **Contains tissues from three germ layers**
- **Tissues well differentiated**
- **Benign tumors often with cysts**
- **Differential Diagnose: Muellertian tumor**

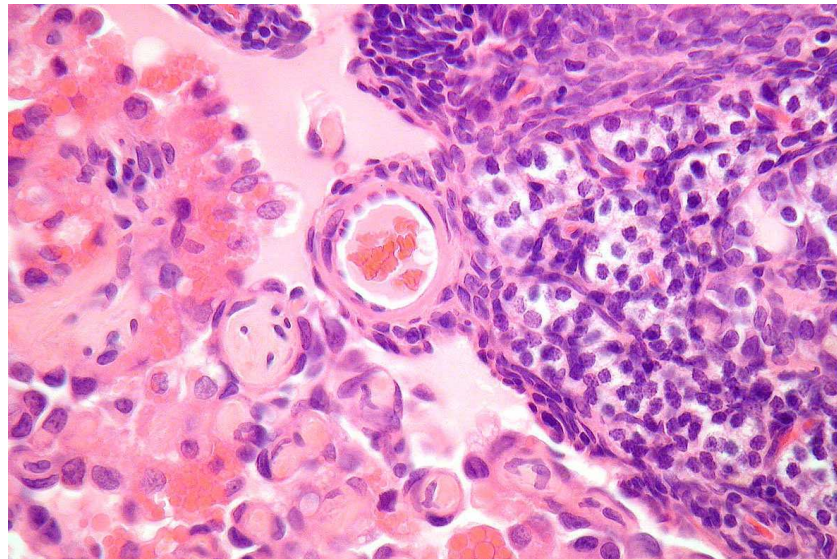
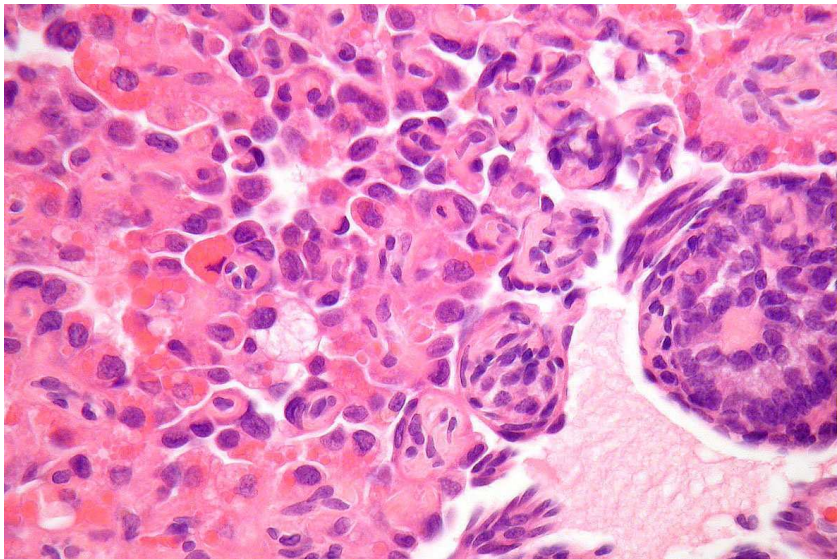
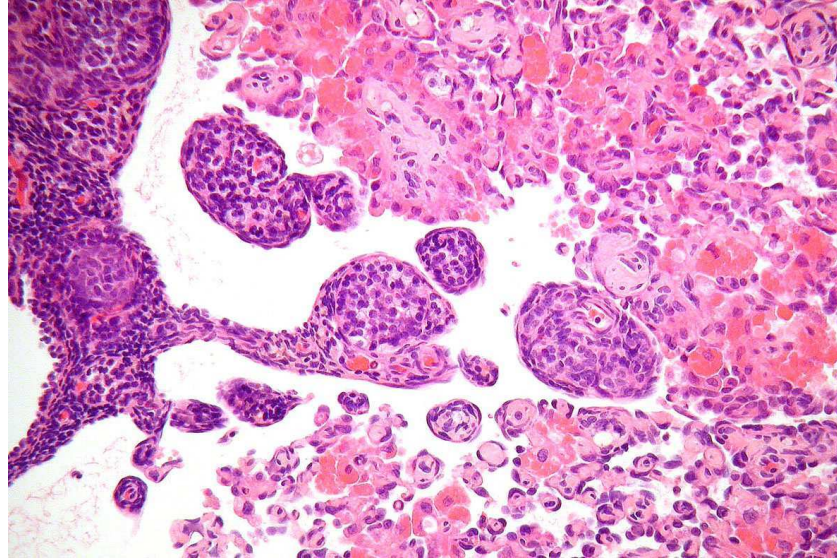
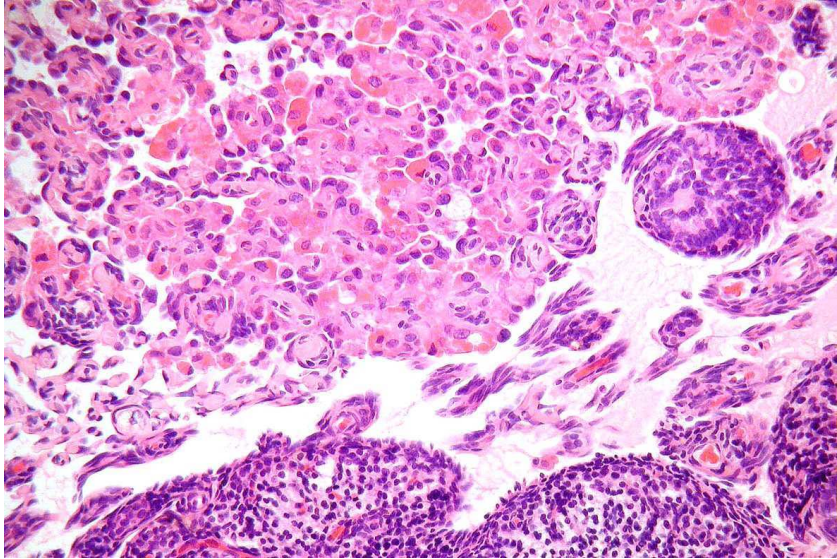
Ovary-Teratoma: Mouse



Ovary-Mesothelioma

- **Papillary structures**
- **Local invasion**
- **Solid areas composed of epithelial-like cells with foamy or vacuolated cytoplasm and large nuclei**
- **Differential Diagnose: Adenoma, Adenocarcinoma**

Ovary, Rat: Mesothelioma (combined with Granulosa cell tumor)

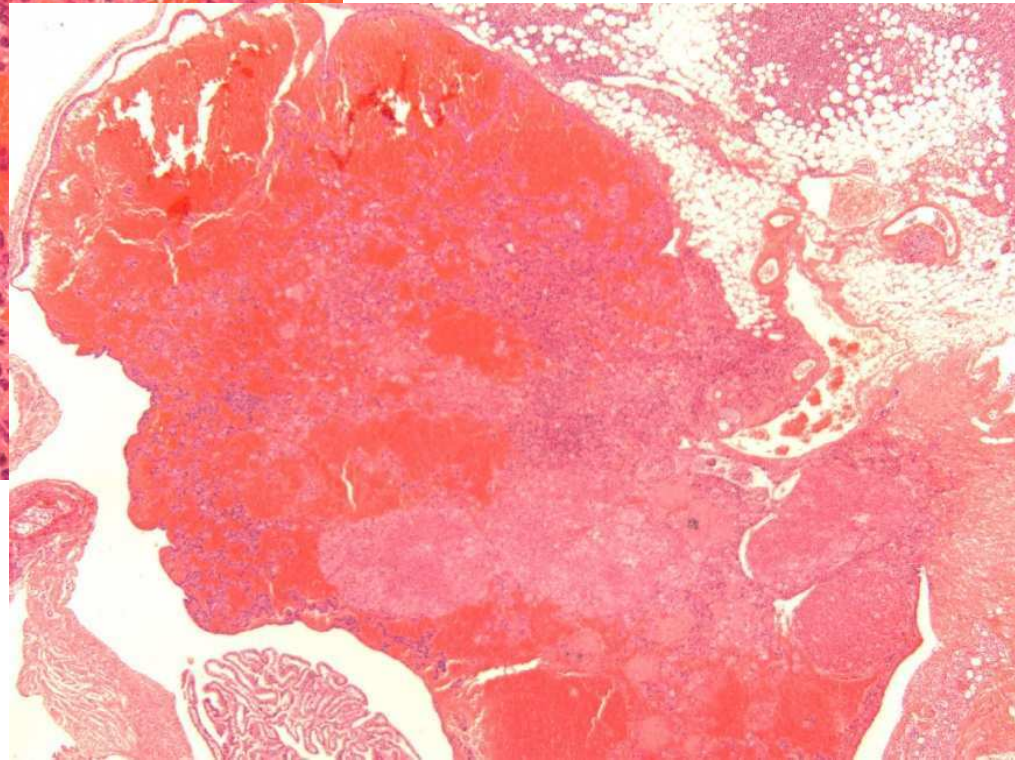
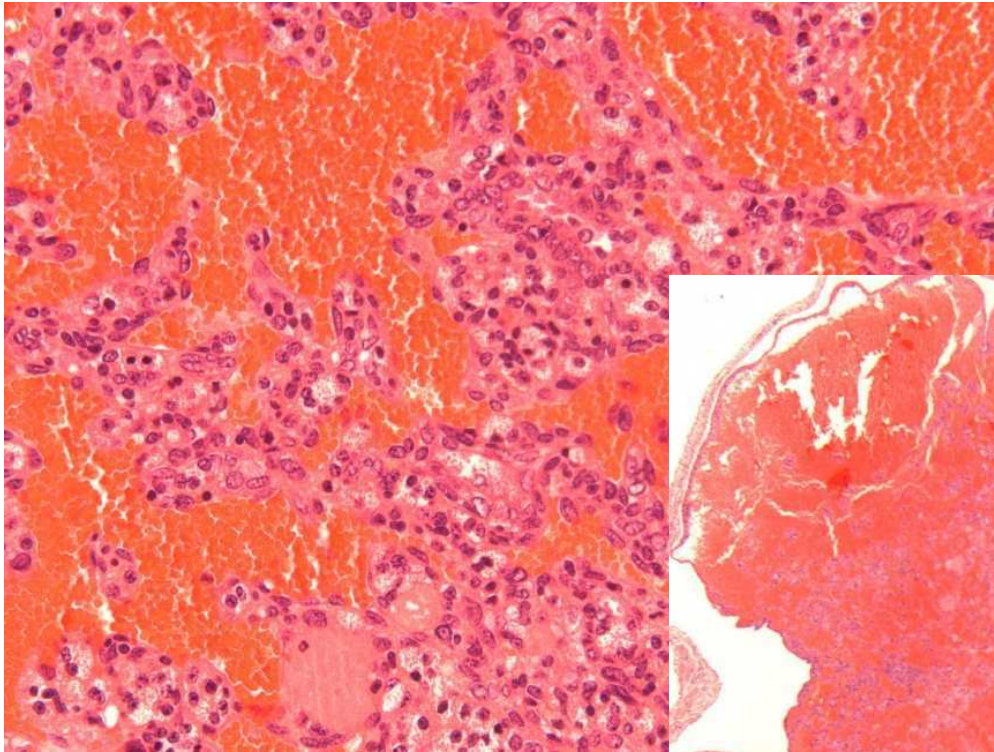


Ovary-Mesenchymal Neoplasms: Hemangioma, Hemangiosarcoma

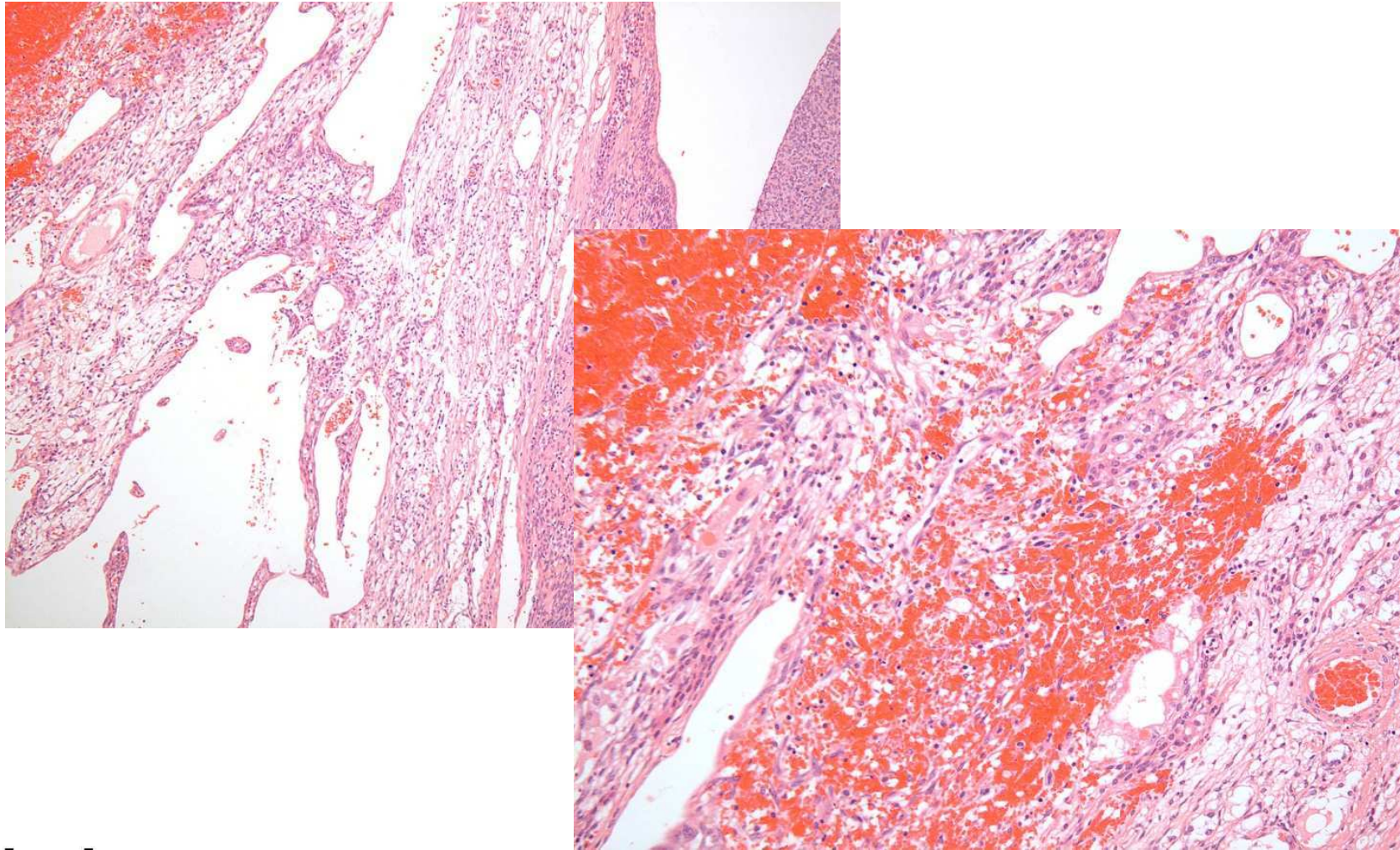
- Hemangioma compressing surrounding tissue
- Hemangioma rarely encapsulated
- Monolayer of endothelial cells with prominent nuclei

- Hemangiosarcoma with atypical endothelium

Mouse, Ovary: Hemangioma



Rat, Ovary: Hemangiosarcoma



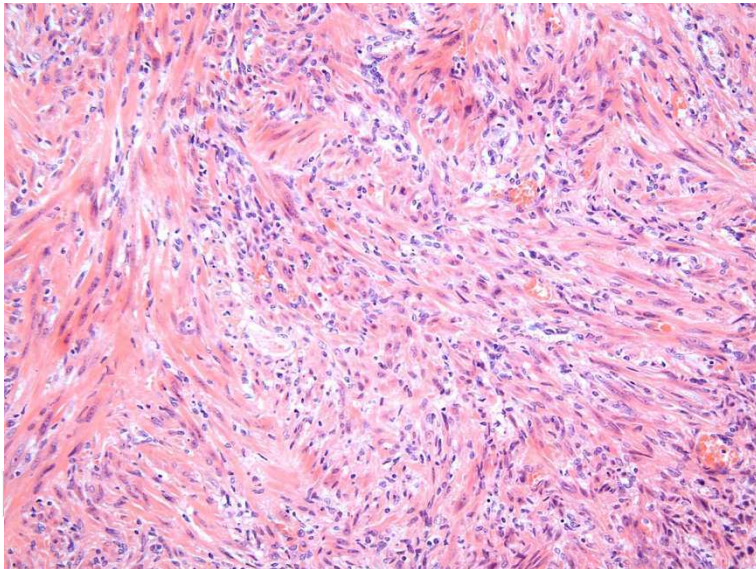
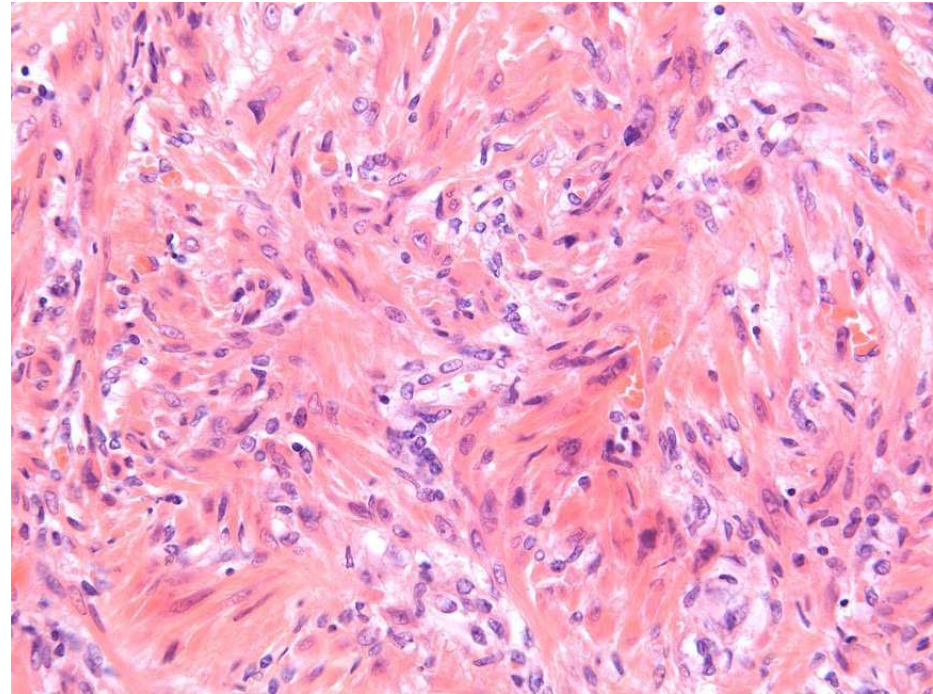
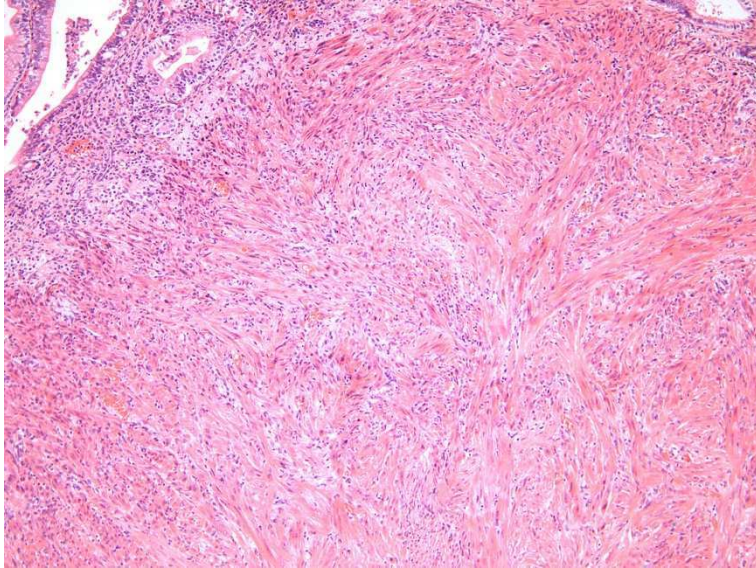
Ovary-Mesenchymal Neoplasms: Leiomyoma, Leiomyosarcoma

- **Leiomyoma: well circumscribed**
- **Interlacing bundles and whorls (often criss-cross)**
- **Often abundant eosinophilic cells**
- **Cells often with perinuclear space**

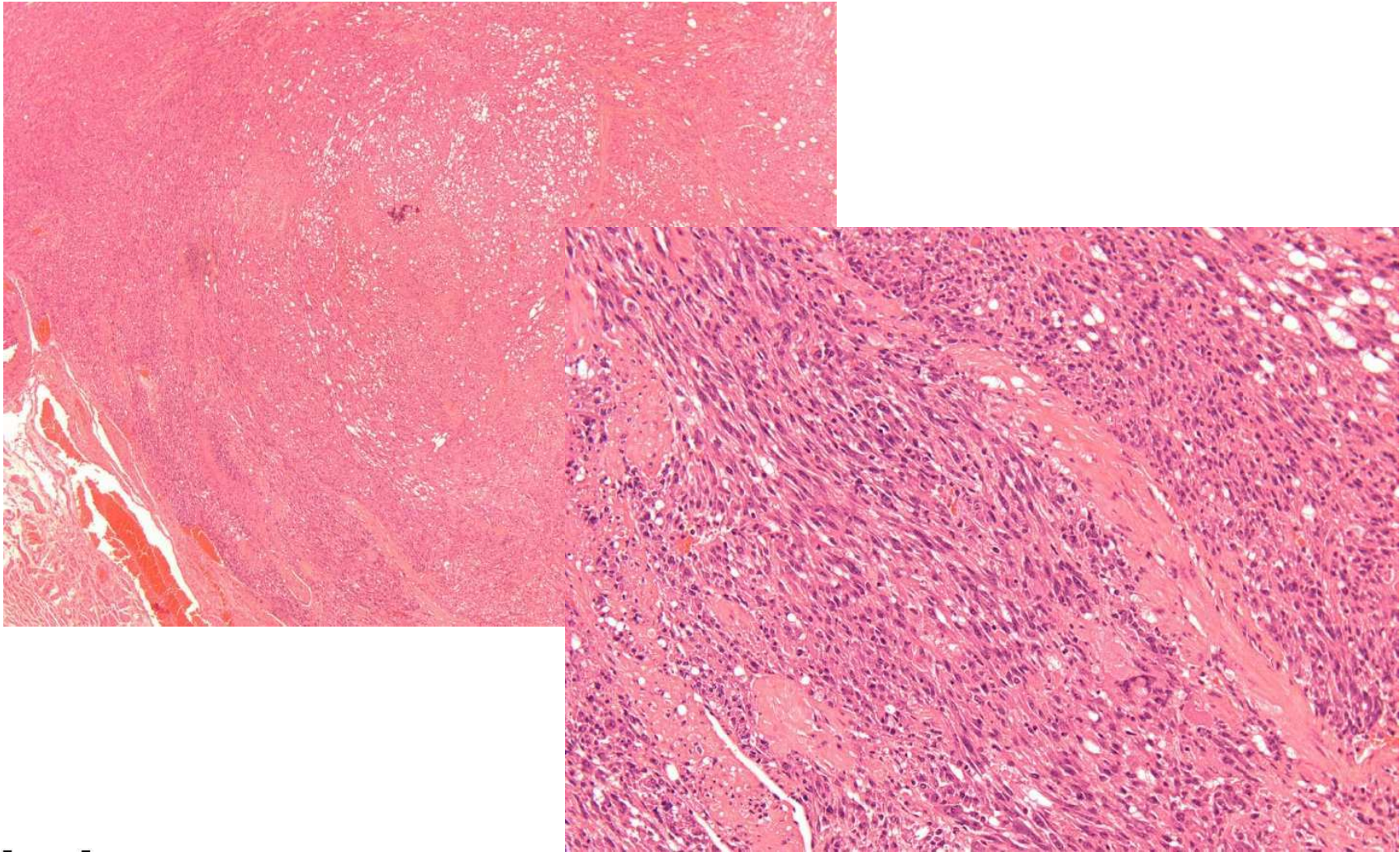
- **Leiomyosarcoma: ill defined**
- **Heterogenous pattern**
- **Often necrosis, mineralization**

- **Differential Diagnose: Fibroma, Fibrosarcoma, Histiocytic sarcoma, Schwannoma,**

Ovary-Hamster: Leiomyoma



Ovary-Mouse: Leiomyosarcoma



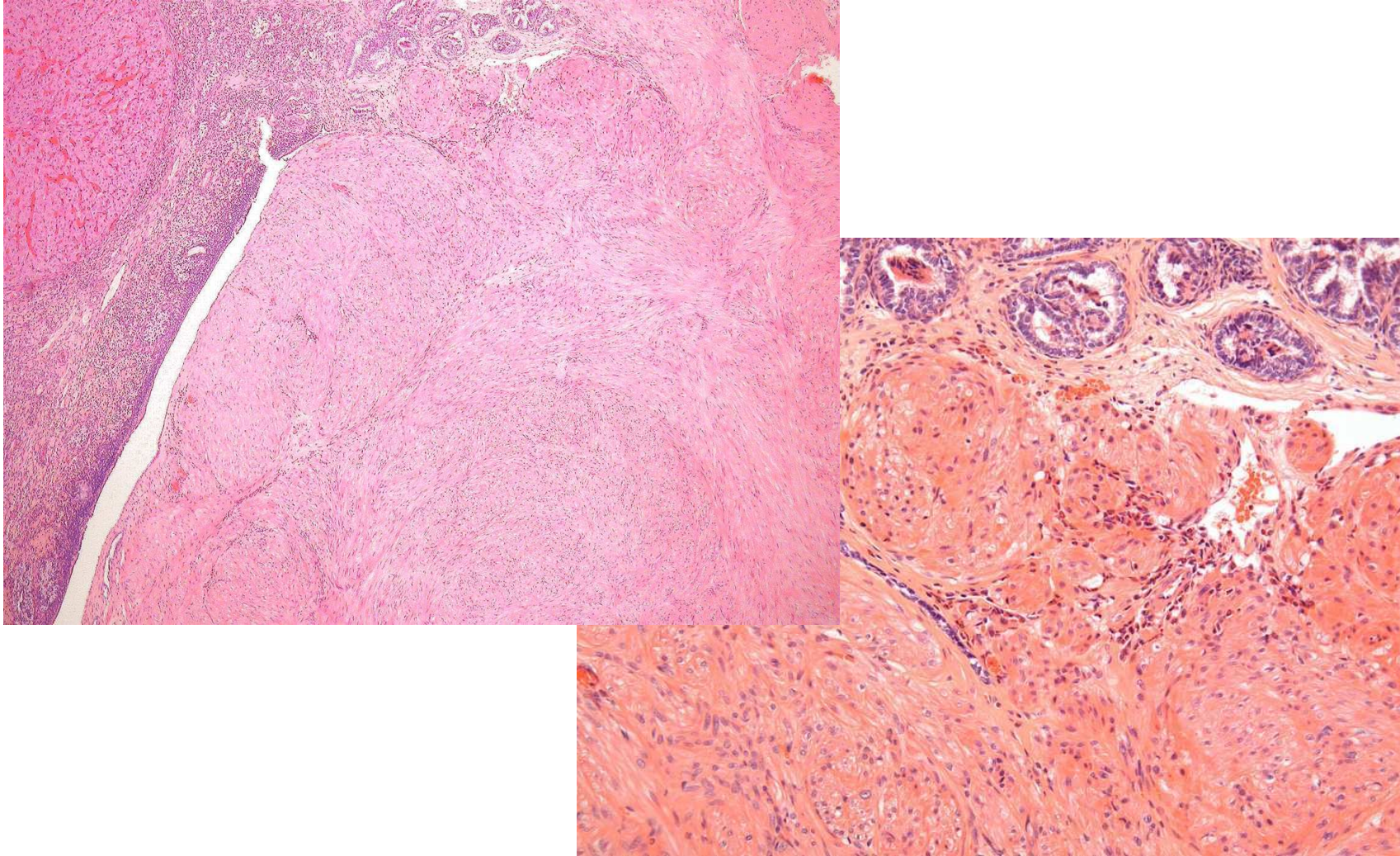
Ovary-Mesenchymal Neoplasms: Fibroma, Fibrosarcoma

- **Fibroma: poorly or moderately cellular tumor compressing surrounding tissue**
- **Interlacing bundles of well-differentiated fibroblasts**
- **Bands of mature collagen**

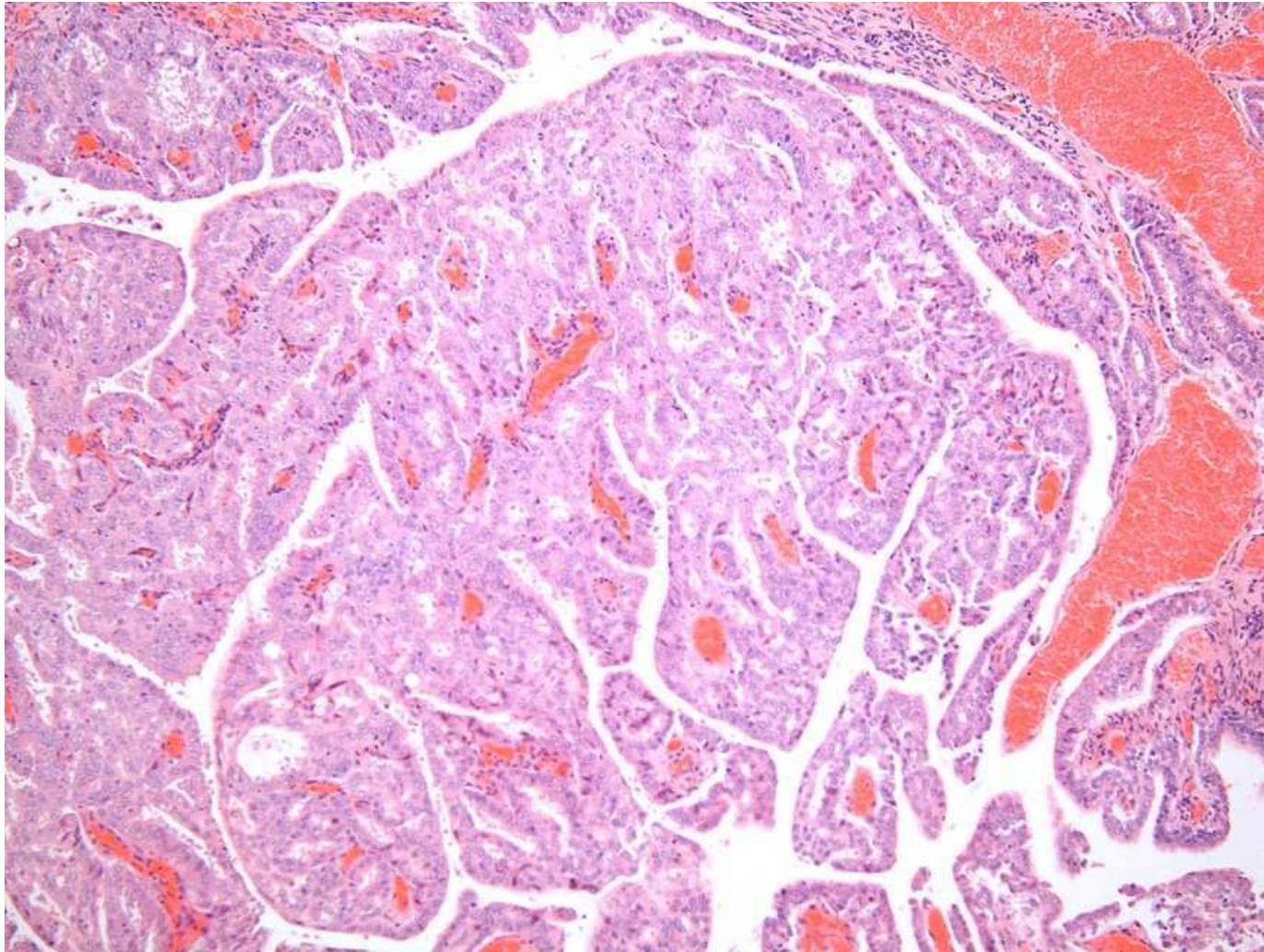
- **Fibrosarcoma: pleomorphic spindle-shaped cells**
- **Often herringbone features**
- **Occasionally myxomatous**
- **There may be necrosis, hemorrhage, invasion**

- **Differential Diagnose: Reactive Fibroplasia, Leiomyoma, Leiosarcoma, Schwannoma**

Ovary, Rat: Fibroma



Ovary-Metastasis: Hamster (Metastasizing Uterine Carcinoma)



Classification: Uterus – Recommendations

<http://www.toxpath.org/nomen/>

- Hyperplasia, endometrial [*epithelial; glandular; stroma*]
- Adenoma and Adenocarcinoma, endometrial
- Papilloma, squamous cell [*keratinizing; non-keratinizing*]
- Carcinoma, squamous cell [*keratinizing; non-keratinizing*]
- Carcinoma, adenosquamous
- Polyp, glandular
- Polyp, endometrial stromal
- Tumor, endometrial stromal, benign
- Sarcoma, endometrial stromal
- Carcinoma, yolk sac
- Choriocarcinoma
- Tumor, Muellierian, mixed, benign and malignant [*heterologous; homologous*]
- Carcinoma, embryonal
- Keratoacanthoma

Uterus-Epithelial Neoplasms: Polyp

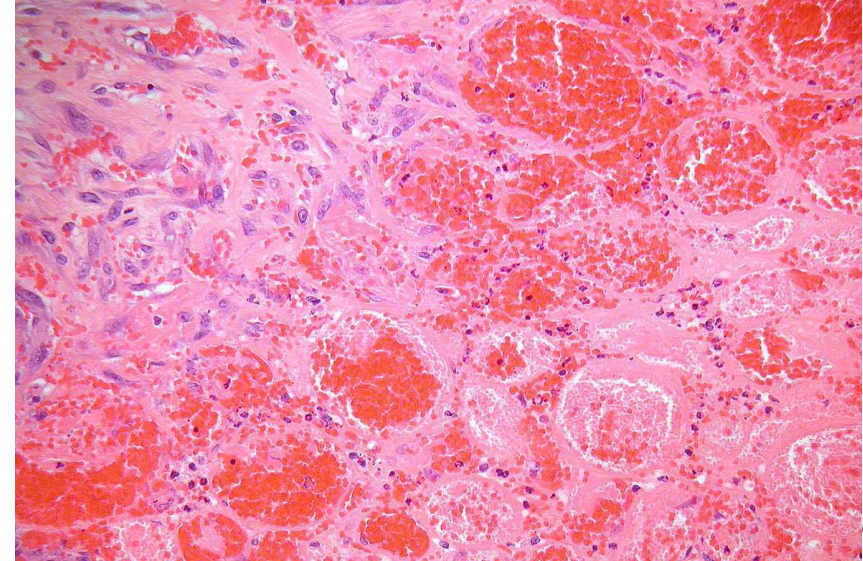
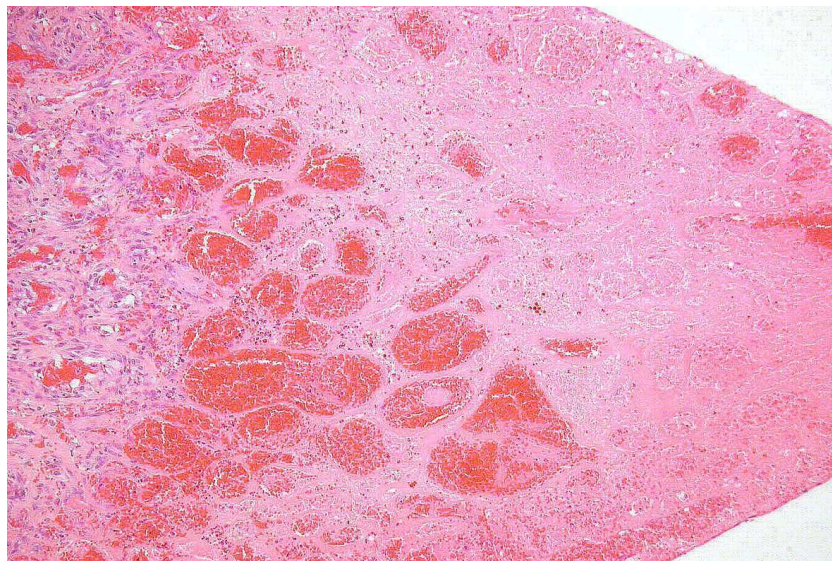
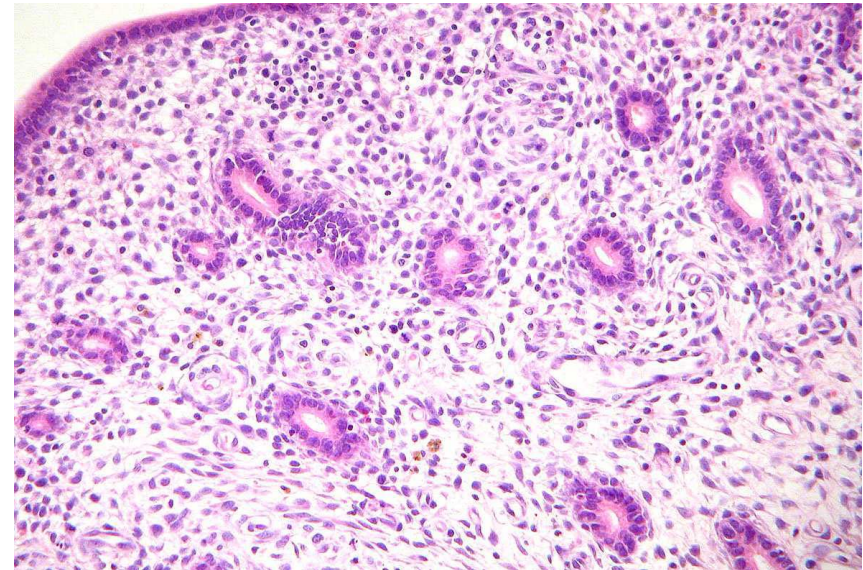
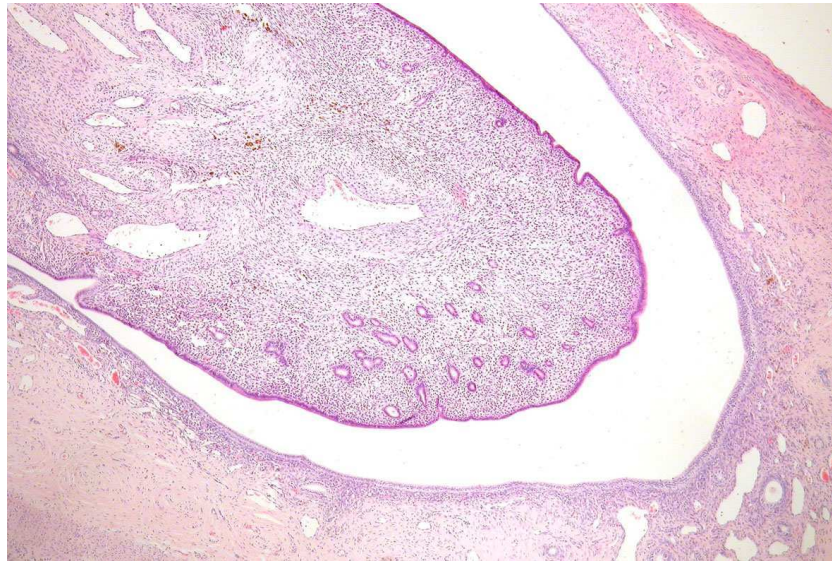
- **Stomal polyp: mass protruding into uterine lumen**
- **covered by cuboidal to columnar epithelium**
- **Stroma composed of spindle-shaped cells, collagen and rarely endometrial glands**

- **Glandular polyp: like stromal polyp but endometrial glands are predominating**

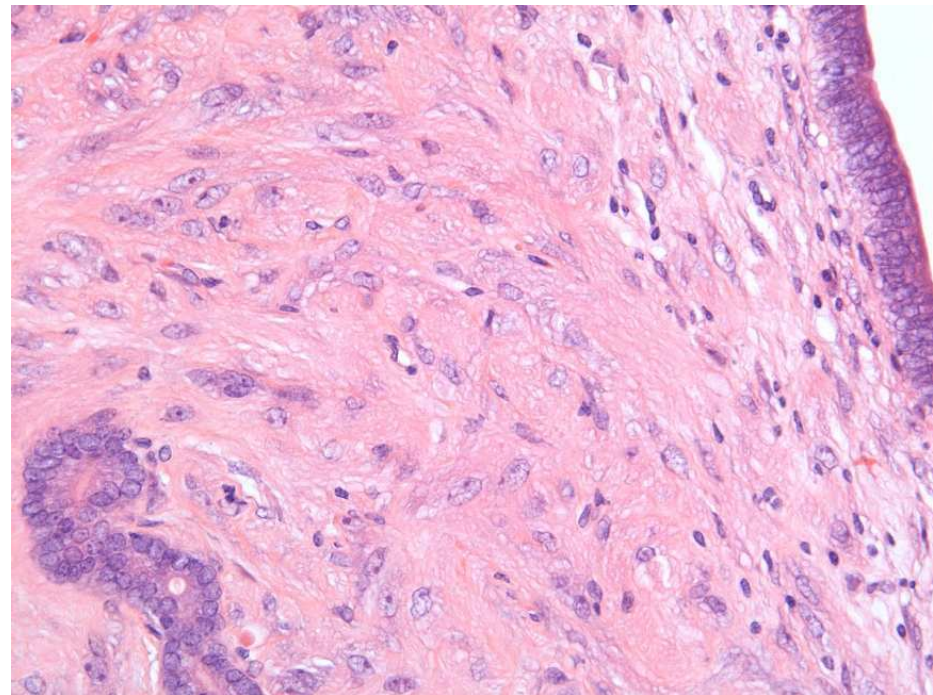
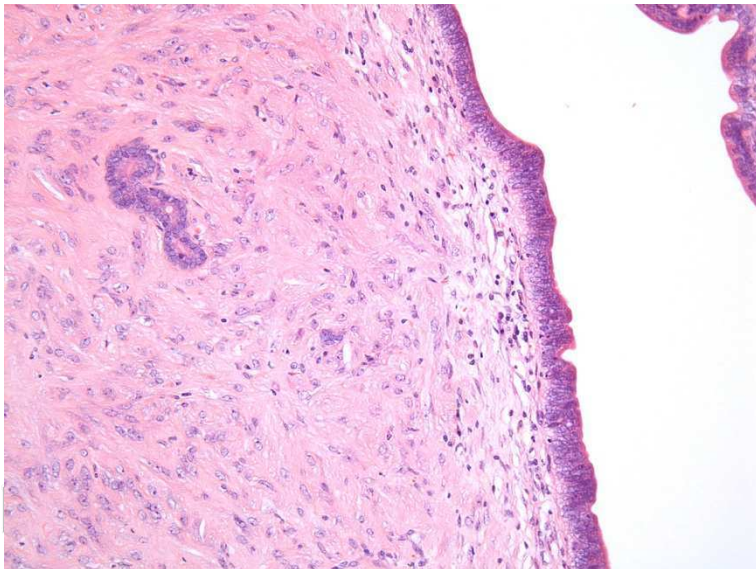
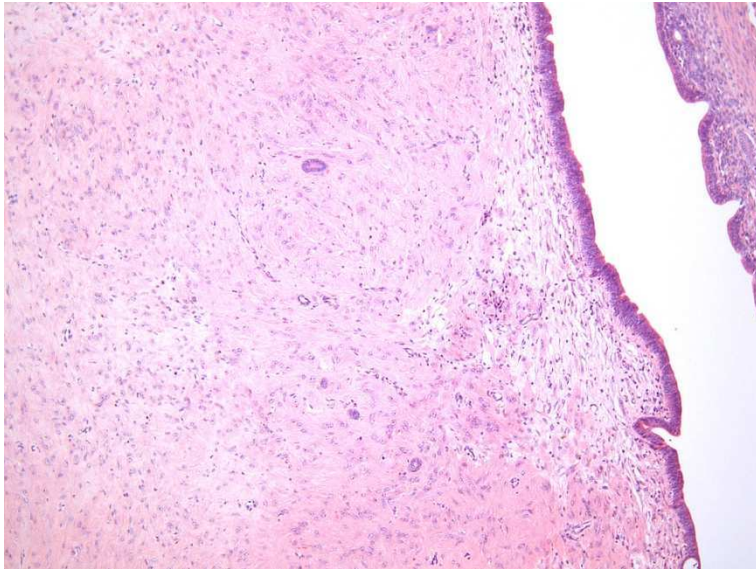
- **Large tumors may reveal hemorrhagic necrosis**

- **Differential Diagnose: Papillary adenoma, Stromal sarcoma, Vascular tumors**

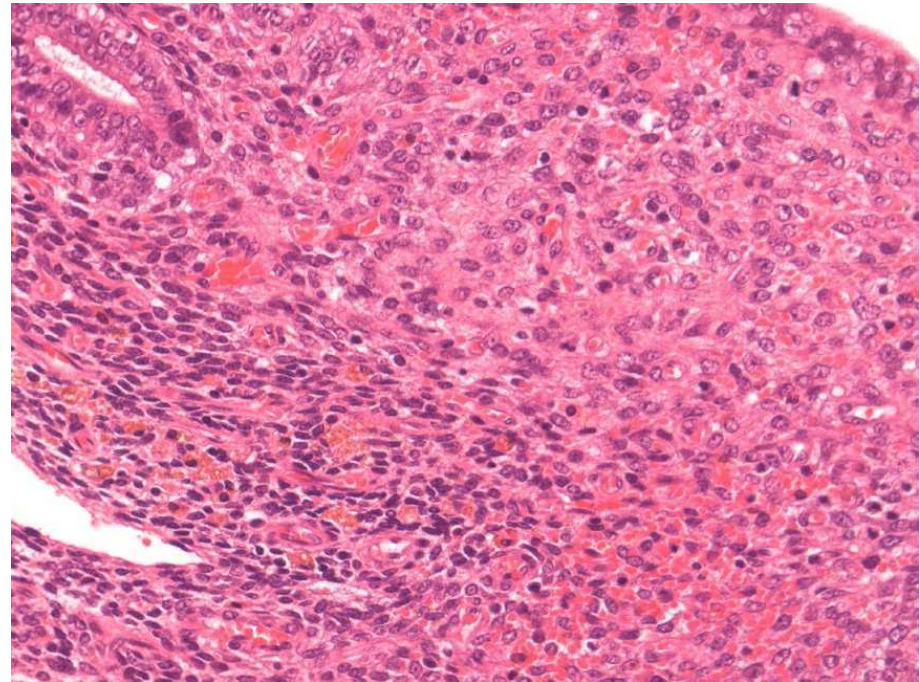
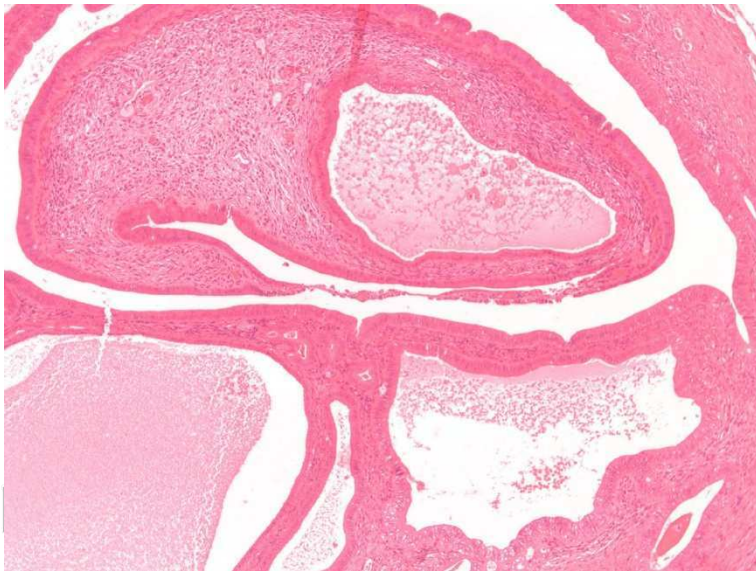
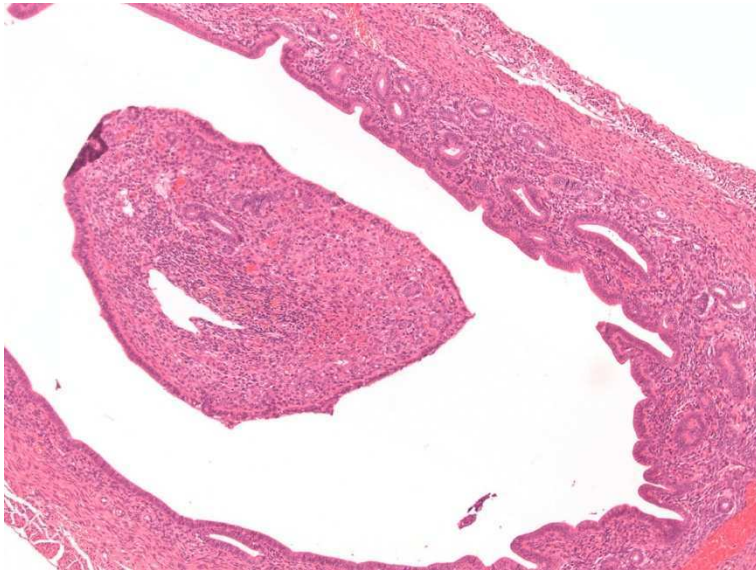
Uterus, Rat: Stromal Polyp



Uterus, Hamster: Stromal Polyp



Uterus, Mouse: Stromal Polyp



Uterus, Mouse: Glandular Polyp

