



# CONTINUING EDUCATION IN TOXICOLOGIC PATHOLOGY REPRODUCTIVE SYSTEM



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**

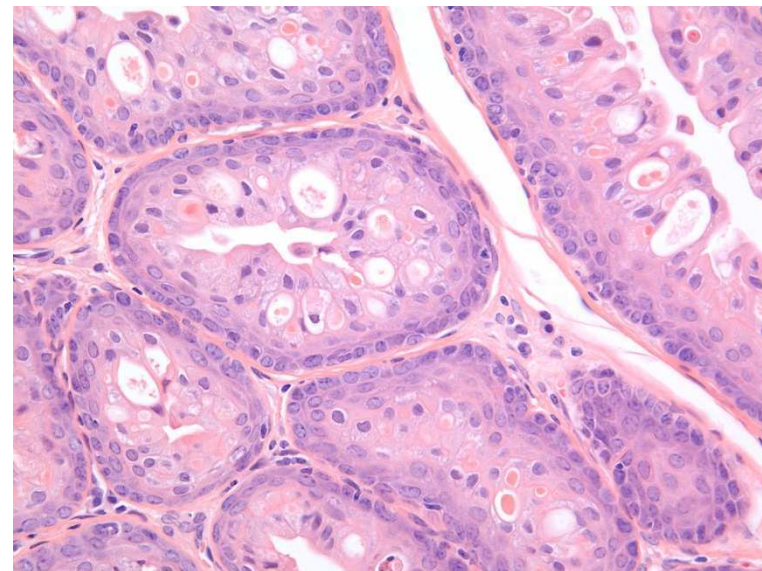
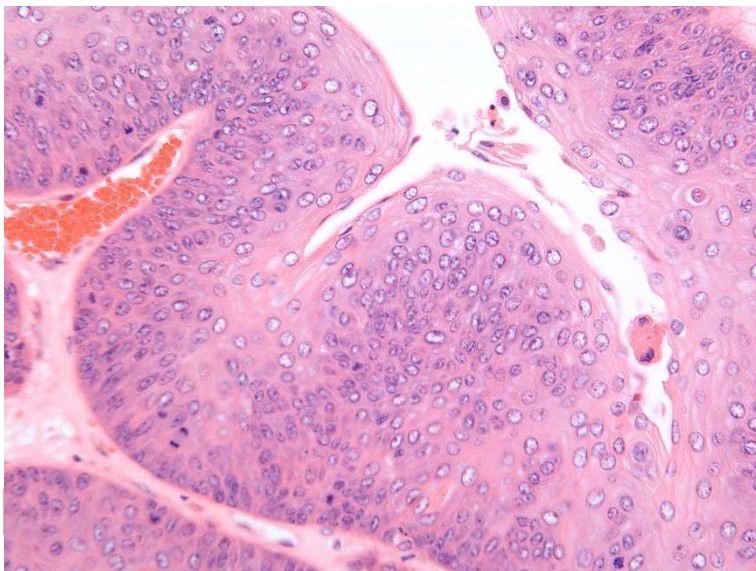
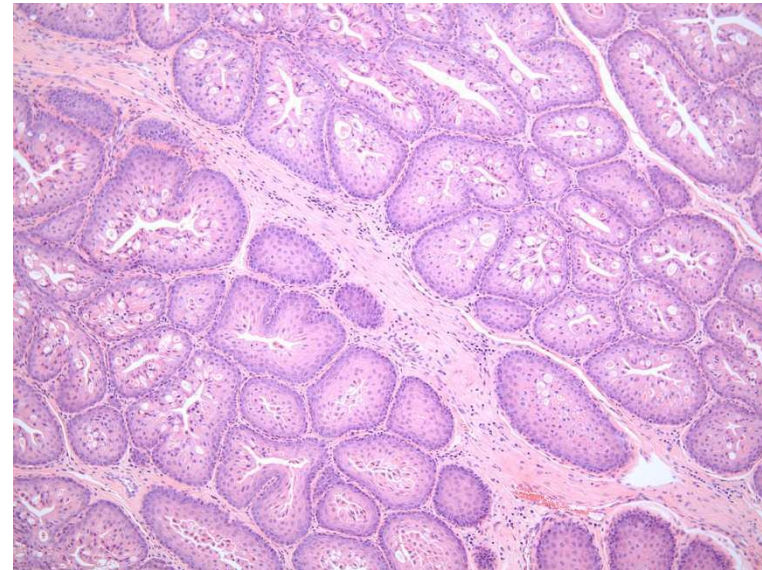
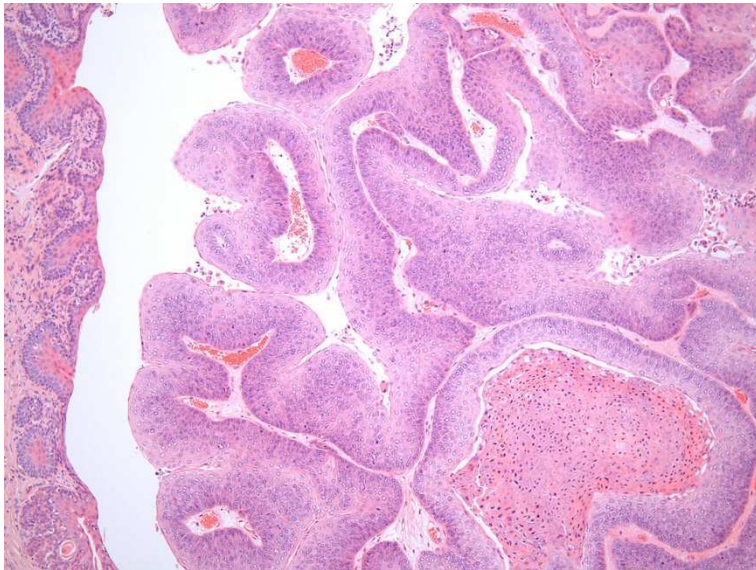
**NUTRILAB®**

**Vishnu Traders**



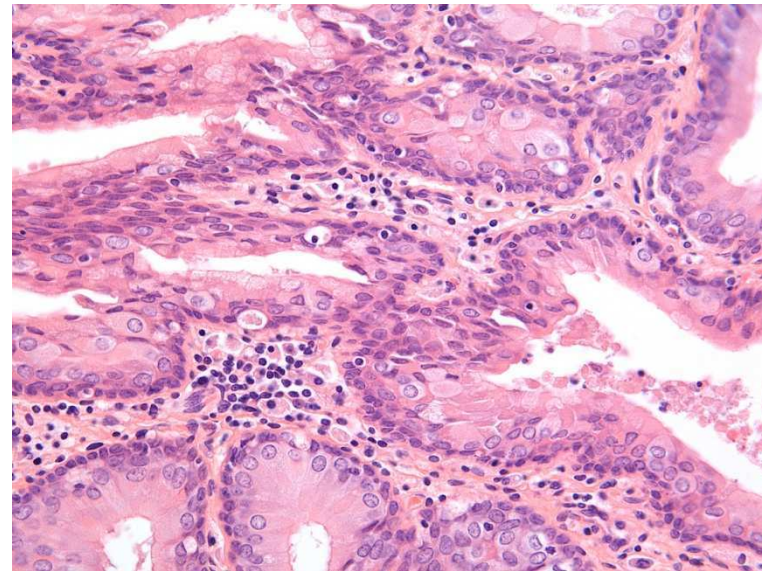
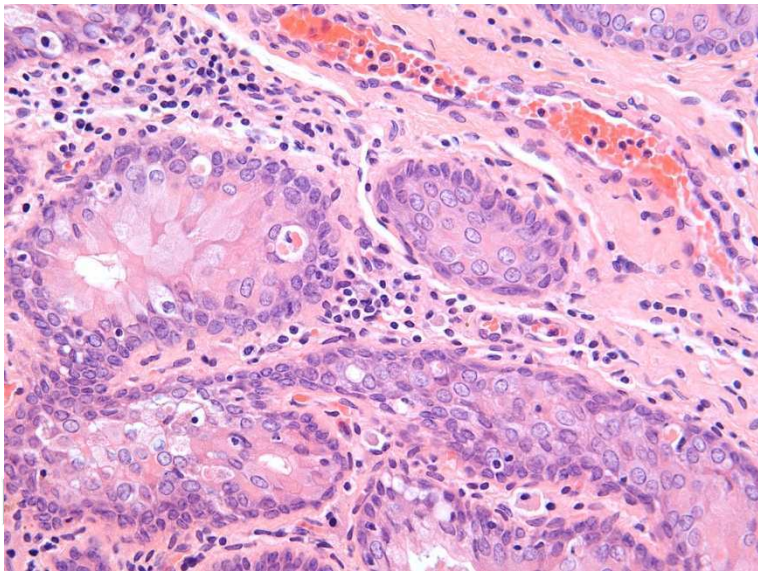
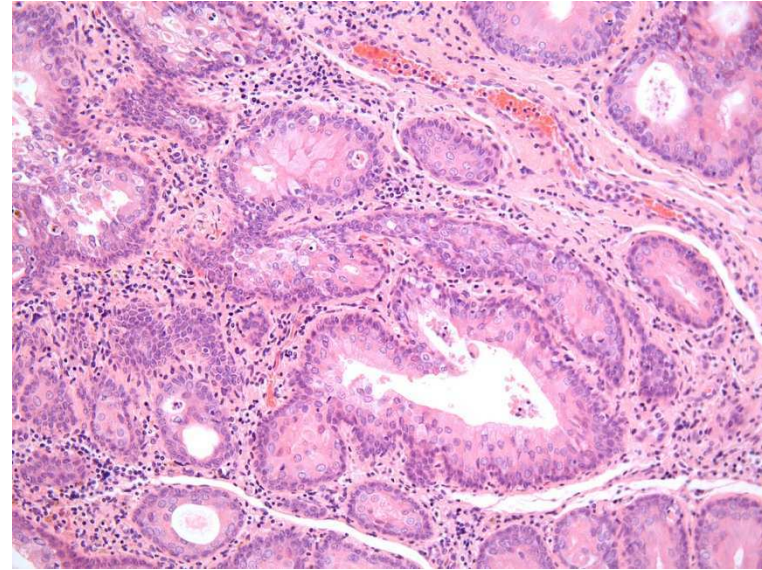
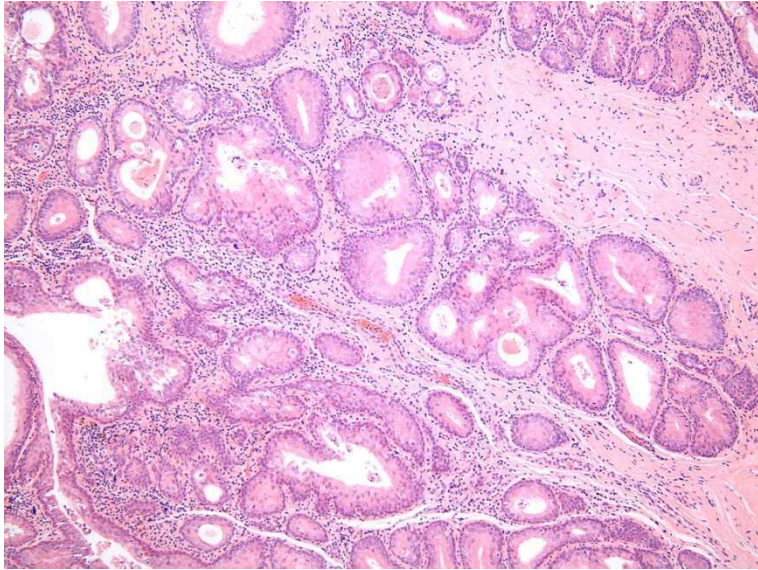
**RCC**  
Linking science to progress

# Vagina, Hamster: Papilloma



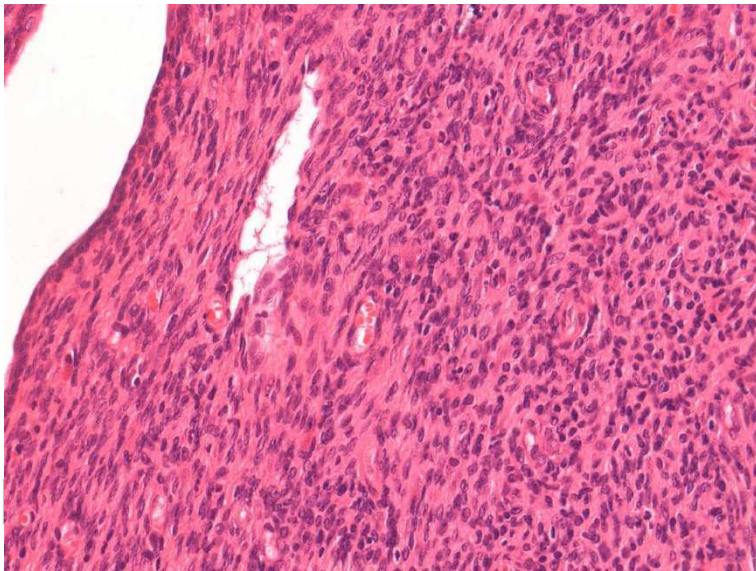
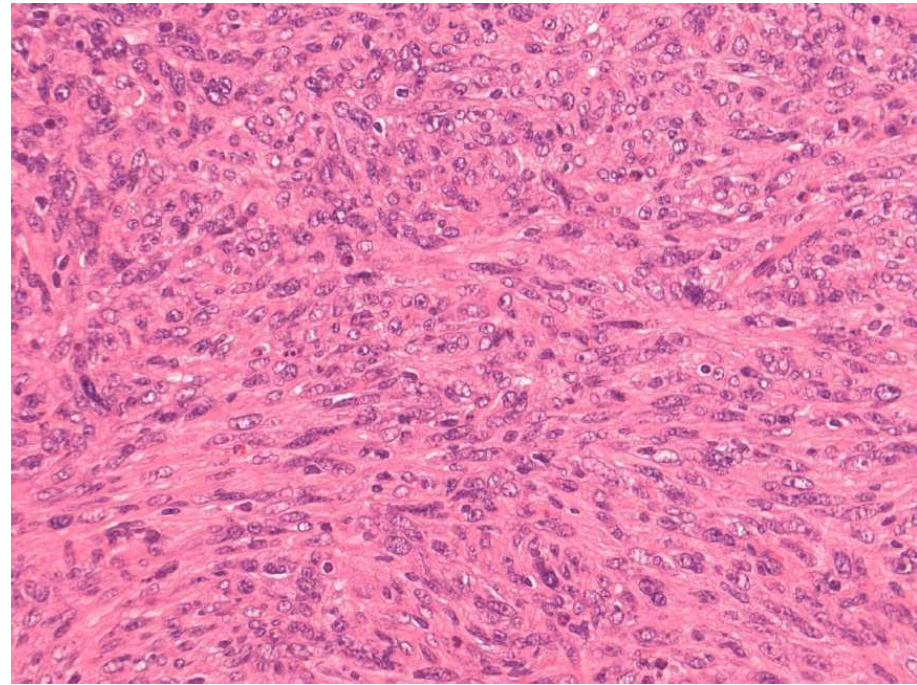
# Vagina, Hamster: Squamous Carcinoma

---



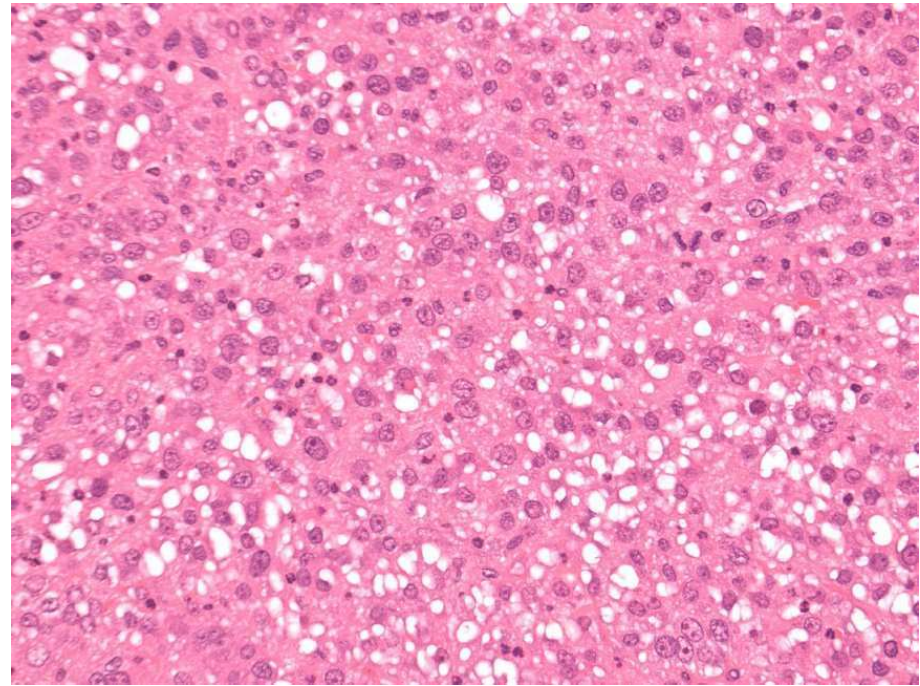
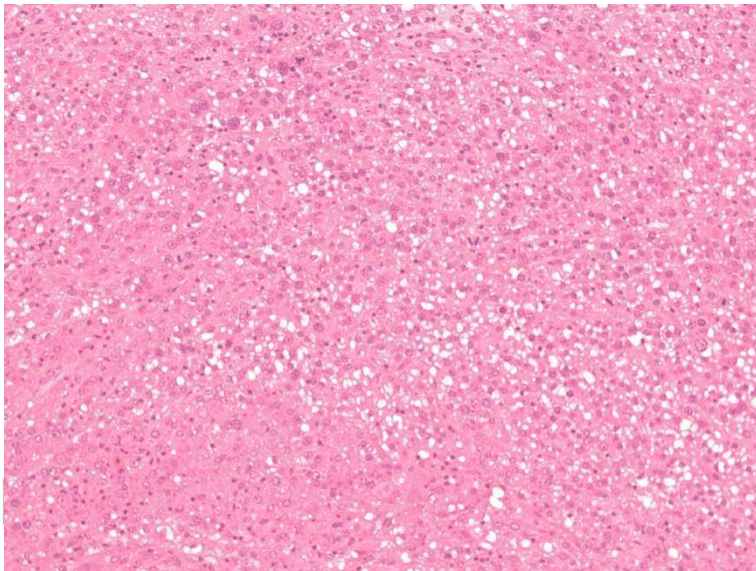
# Vagina, Mouse: Leiomyoma

---



# Vagina, Mouse: Liposarcoma

---



## Classification: Mammary Gland – Recommendations

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

---

- Hyperplasia [*focal with atypia; lobular; ductal*]
- Adenoma [*alveolar; cystic; papillary; tubular*]
- Fibroadenoma [*adenomatous; fibromatous*] (B)
- Adenocarcinoma [*alveolar; comedo; cribriform; cystic; medullary; papillary; scirrhous; solid; spindle cell; tubular*]
- Adenocarcinoma arising in fibroadenoma
- Tumor, mixed, benign [*adenolipoma type*] and malignant [*carcinosarcoma type*]

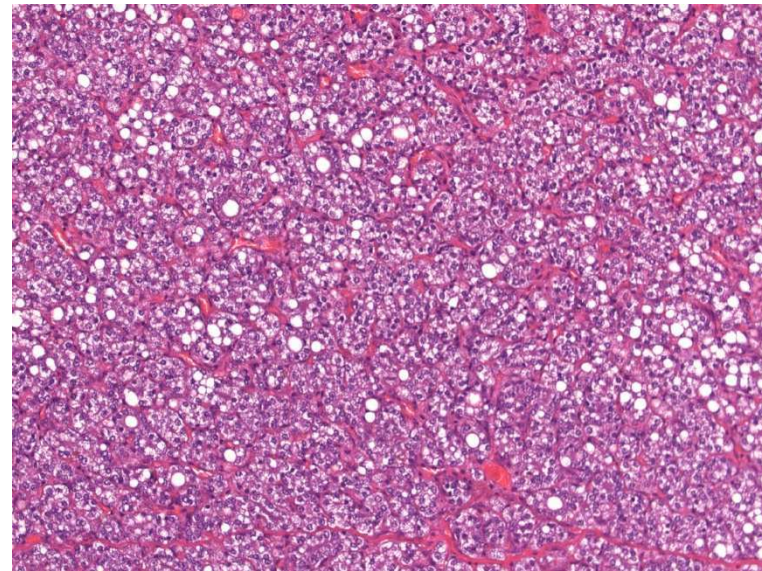
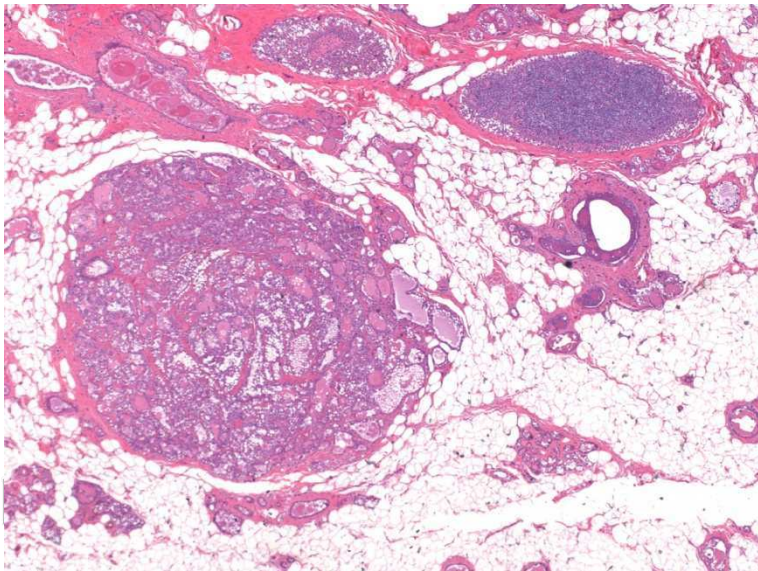
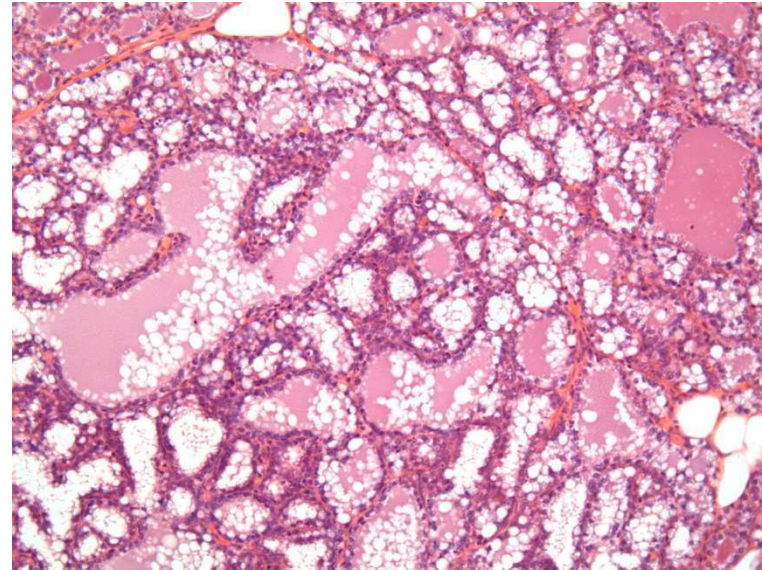
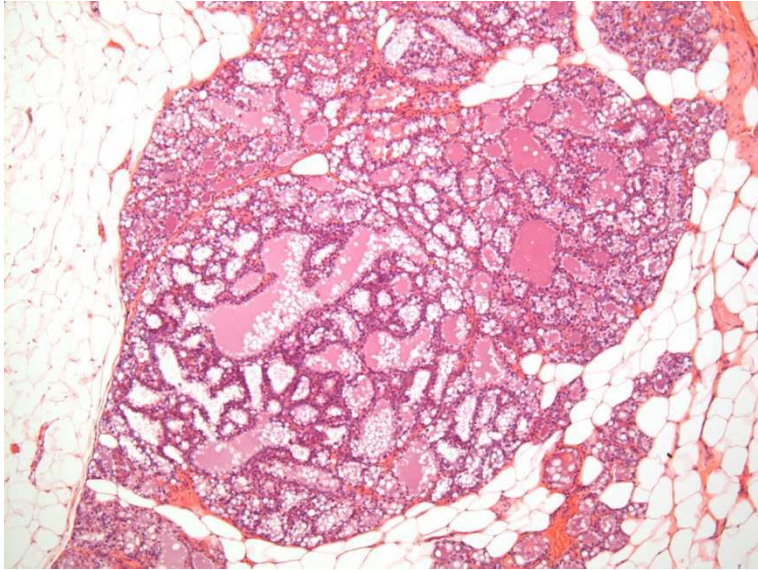
# Mammary Gland-Epithelial Neoplasms: Adenoma

---

- Well demarcated with preserved regular structure
- Cells well differentiated
- Mitosis may be present
  
- Differential Diagnose: Adenocarcinoma

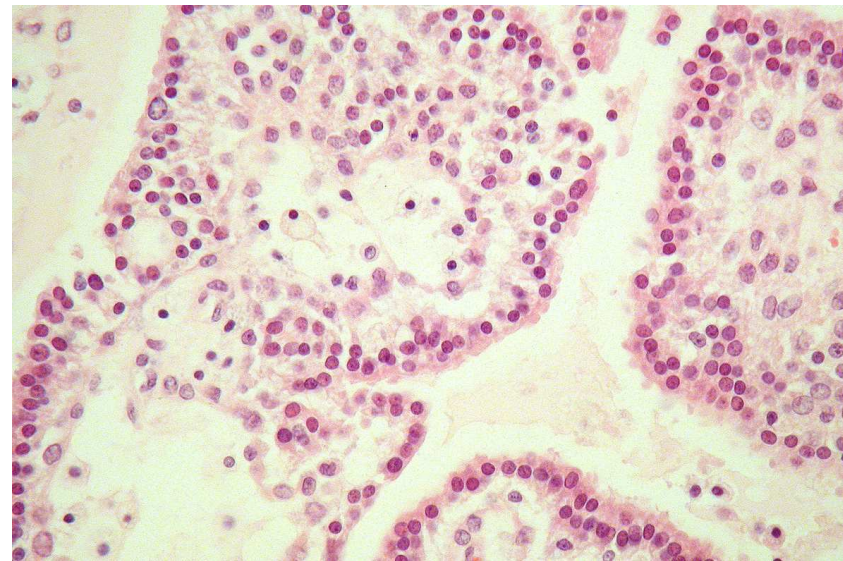
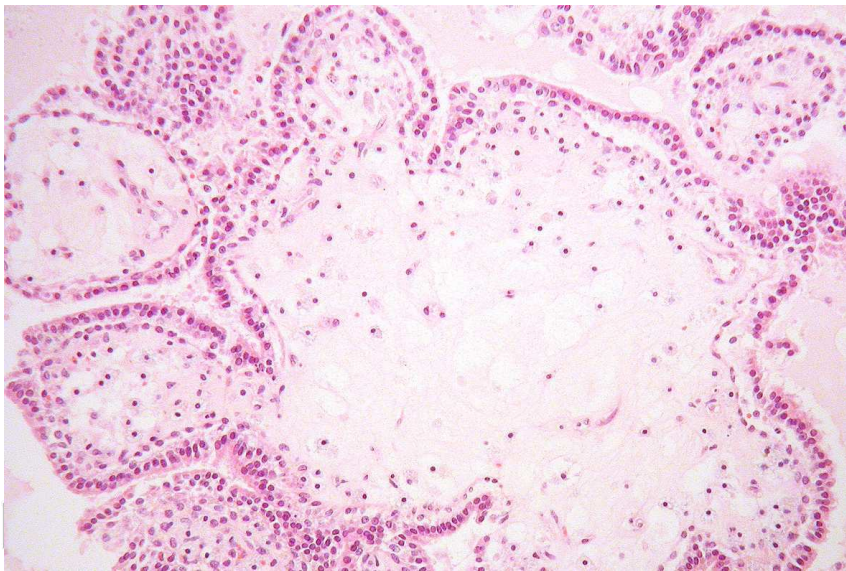
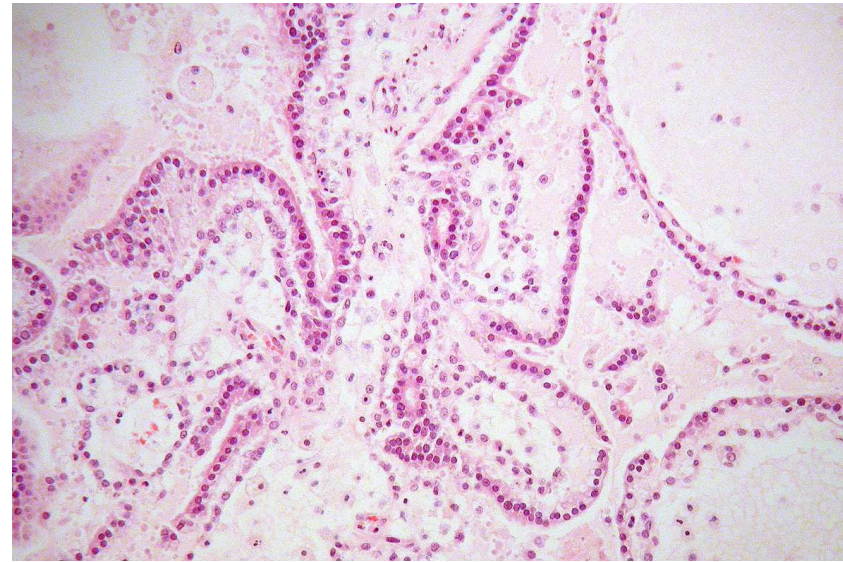
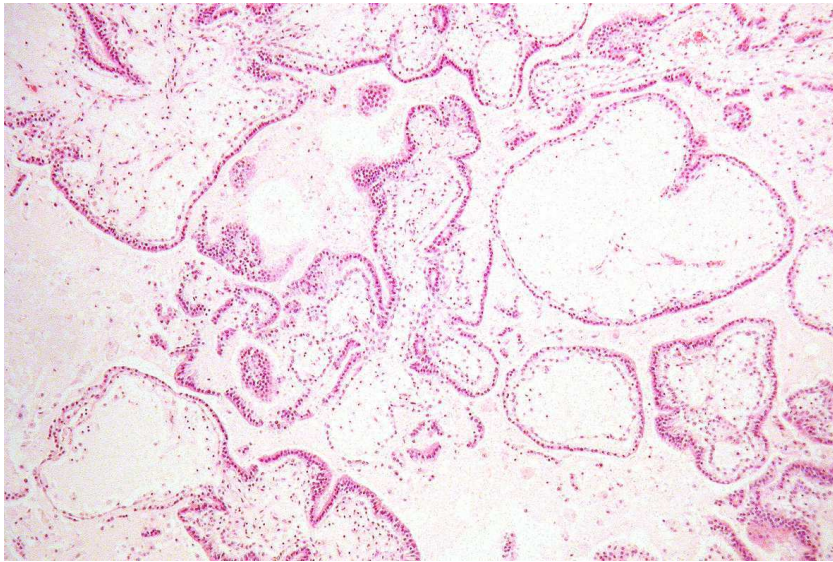
# Mammary Gland, Rat: Adenoma

---





# Mammary Gland, Rat: Cystadenoma



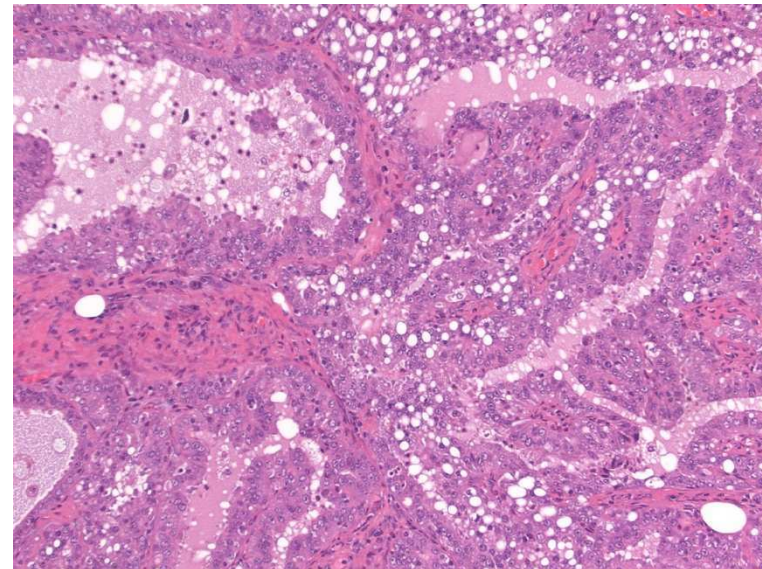
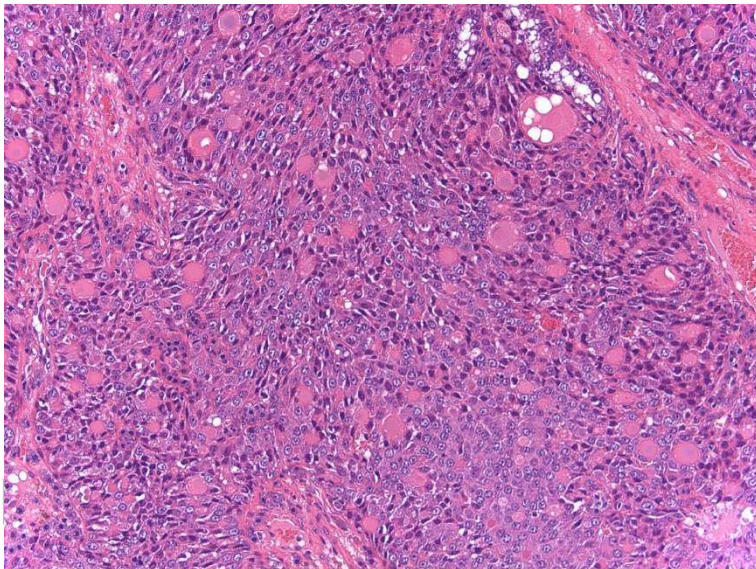
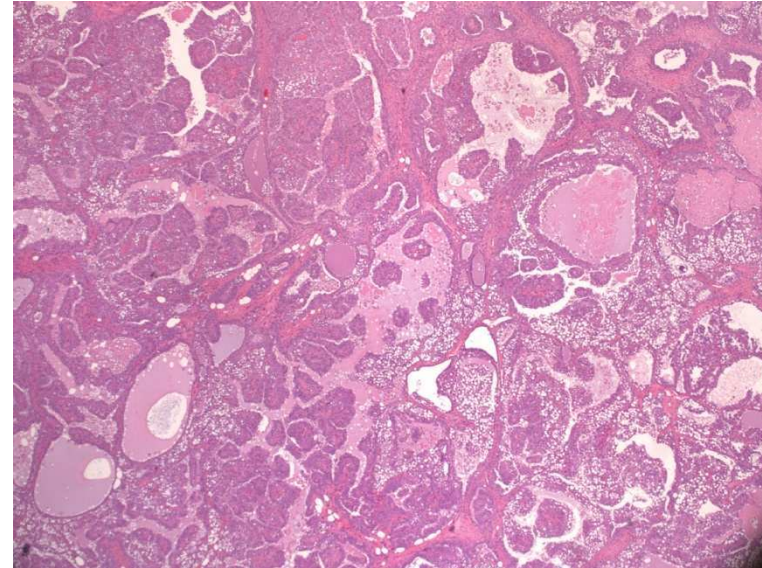
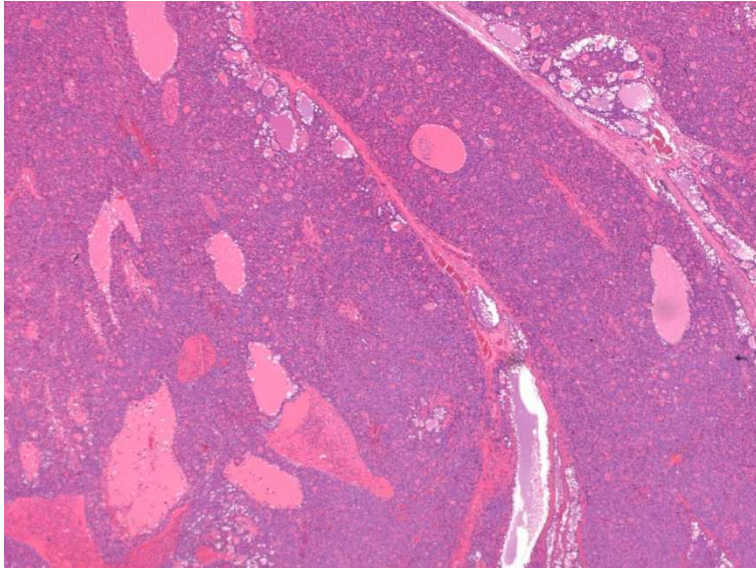
# Mammary Gland-Epithelial Neoplasms: Adenocarcinoma

---

- Occasionally well demarcated
  - Do preserved regular structure
  - Often different growth patterns in single neoplasm
  - Necrosis, hemorrhage, stromal reaction
  - Intracystic papillary patterns
  - Multilayered cell sheets
  - Intraductal type: Attention!
- 
- Differential Diagnose: Adenoacanthoma, Adenoma

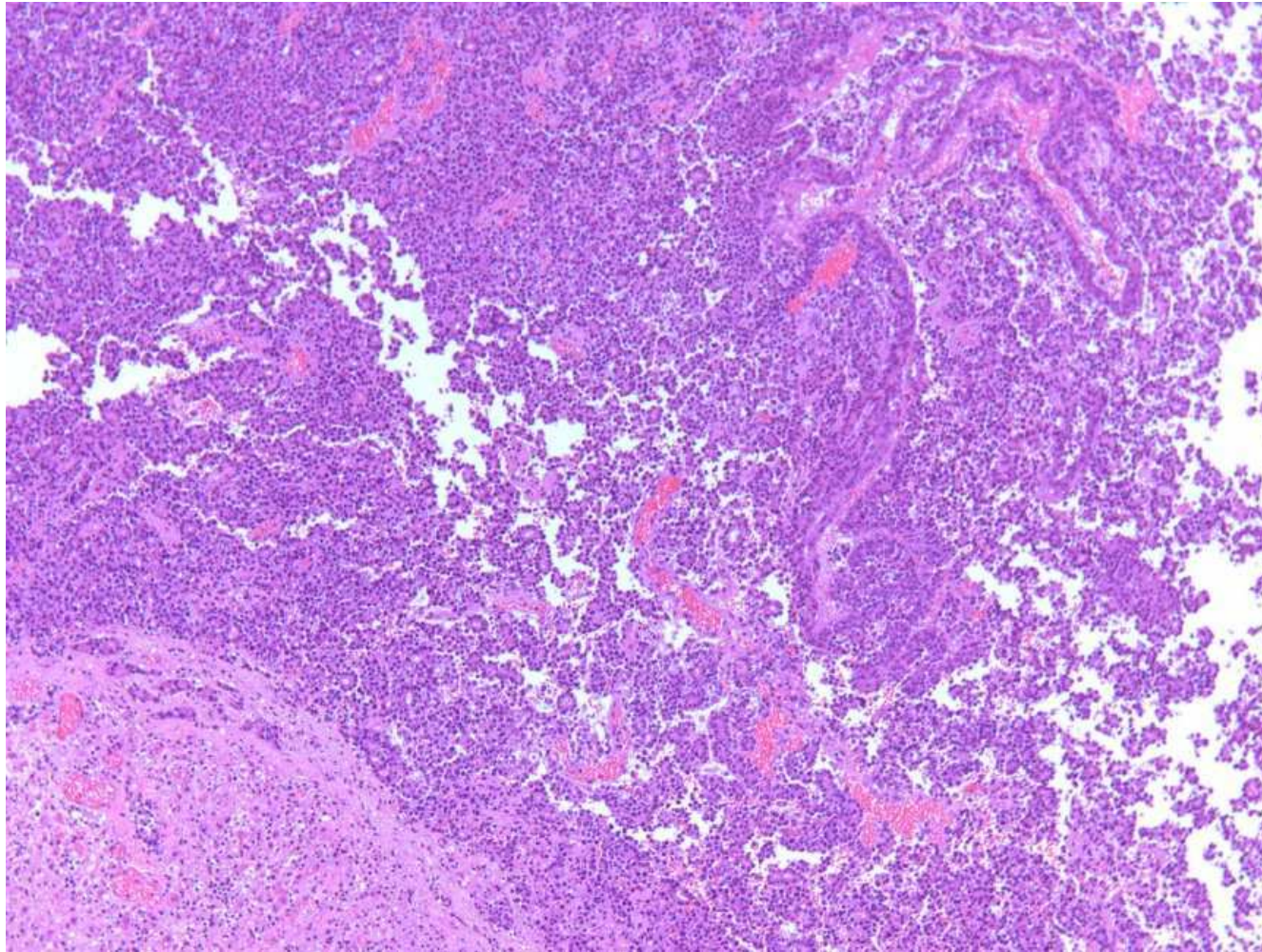
# Mammary Gland, Rat: Adenocarcinoma

---



# Mammary Gland, Mouse: Adenocarcinoma

---

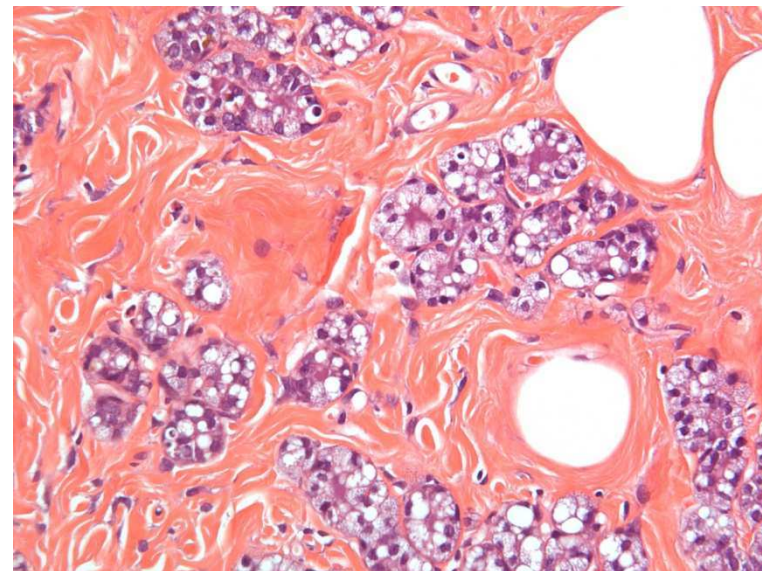
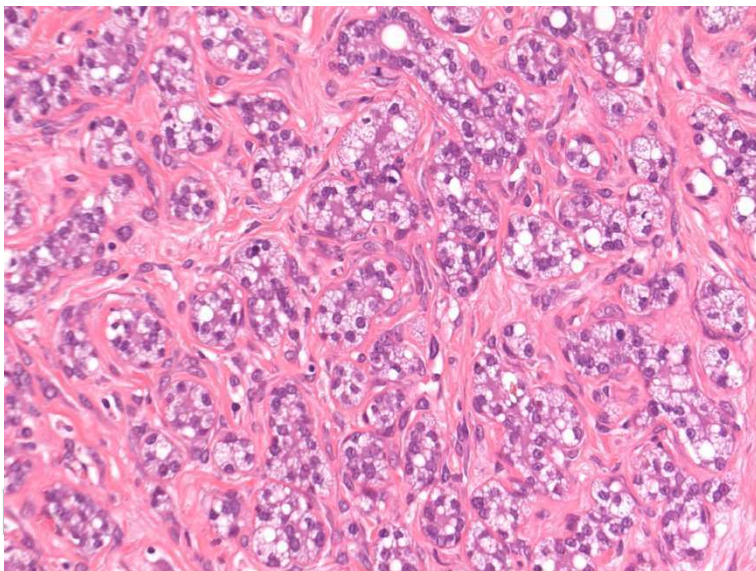
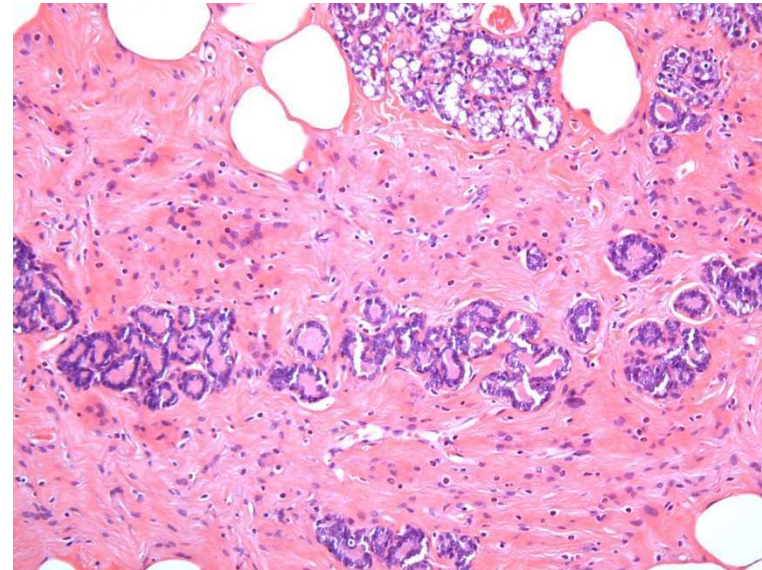
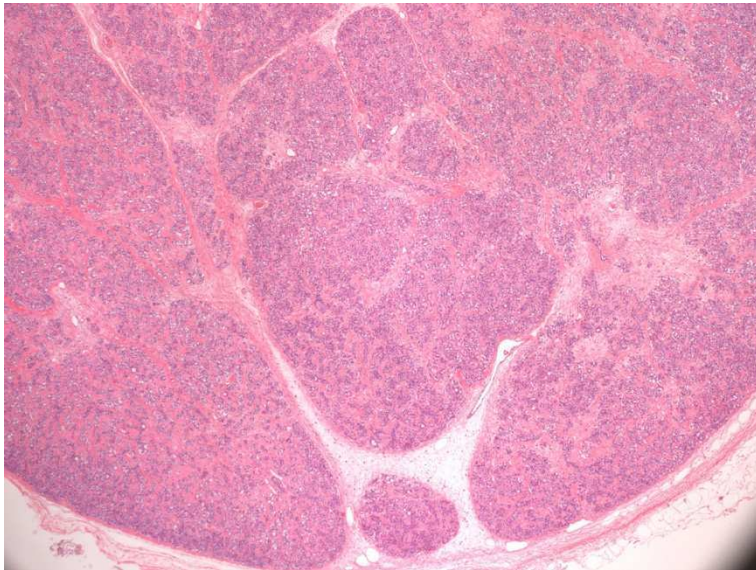


# Mammary Gland-Epithelial Neoplasms: Adenofibroma

---

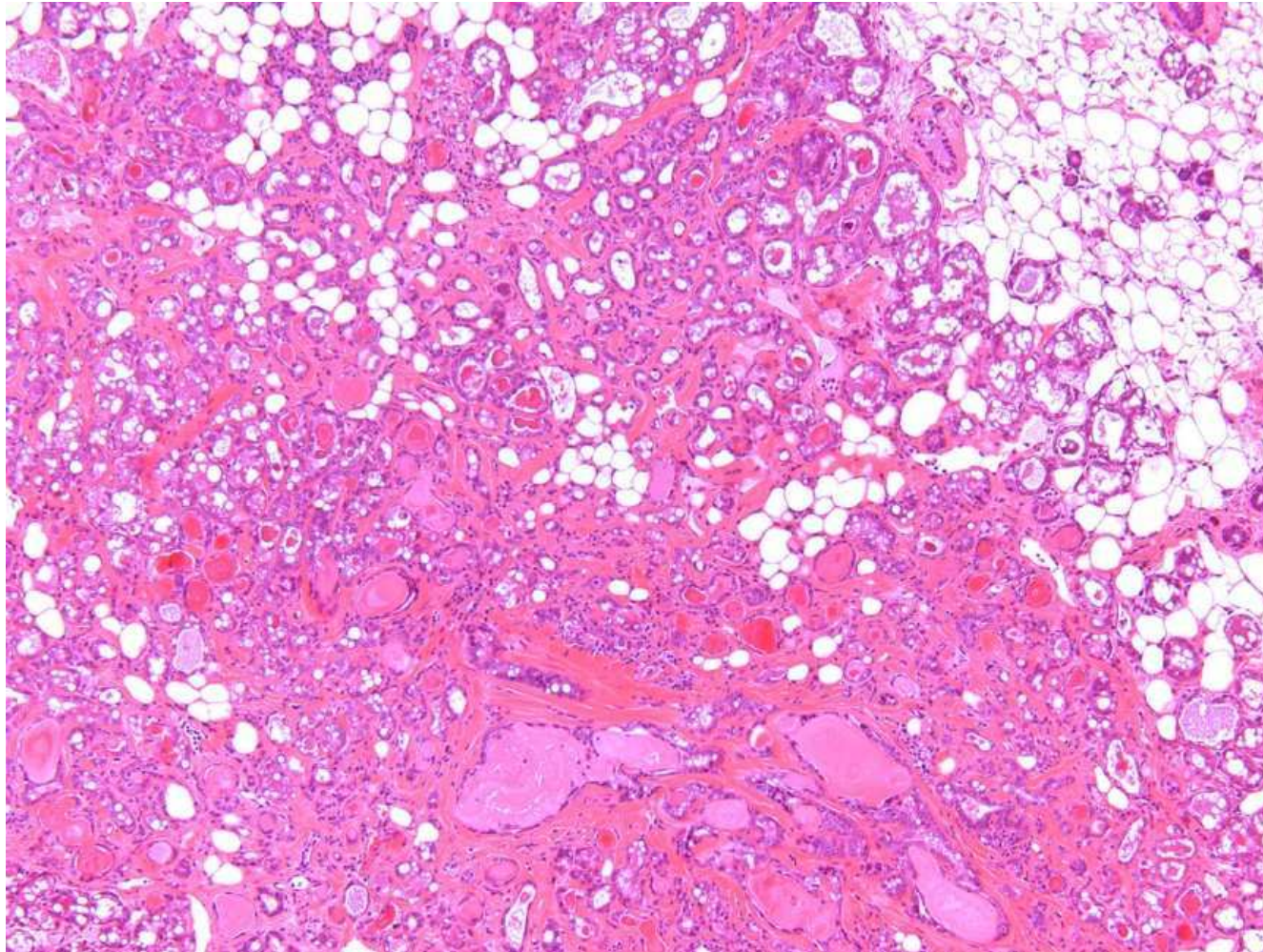
- **Glandular epithelium and fibrous connective tissue (amounts may be very variable between single neoplasms)**
- **Epithelium often forms ducts, nests, sheets, alveoli or small cysts**
- **Mitosis may be present**
- **Focal areas of atypia or pleomorphism may be present**
  
- **Differential Diagnose: Adenoma, Adenocarcinoma**

# Mammary Gland, Rat: Adenofibroma



# Mammary Gland, Mouse: Adenofibroma

---



# Mammary Gland-Epithelial Neoplasms: Adenocarcinoma Arising in Fibroadenoma

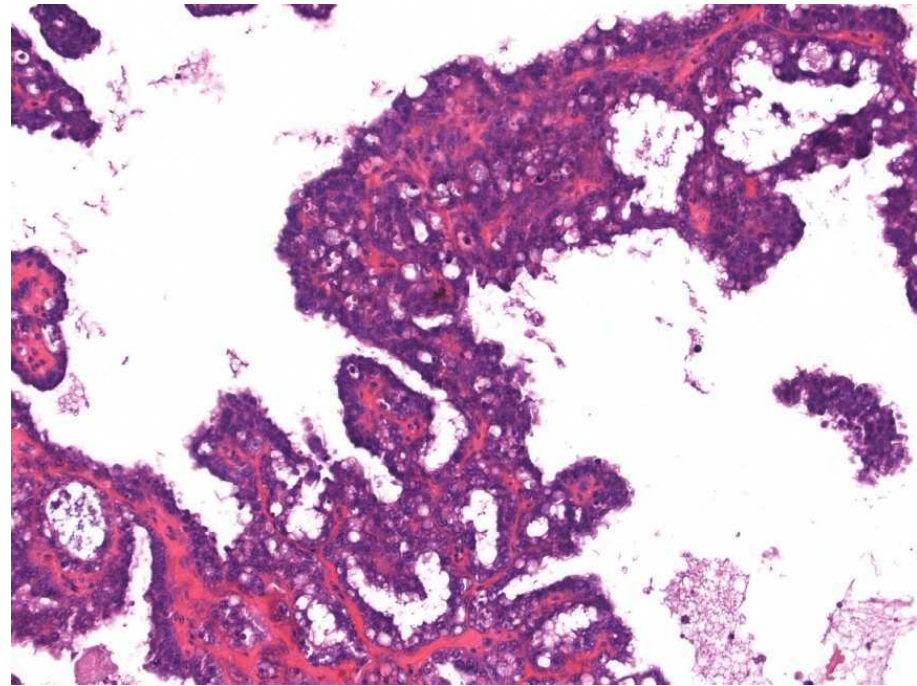
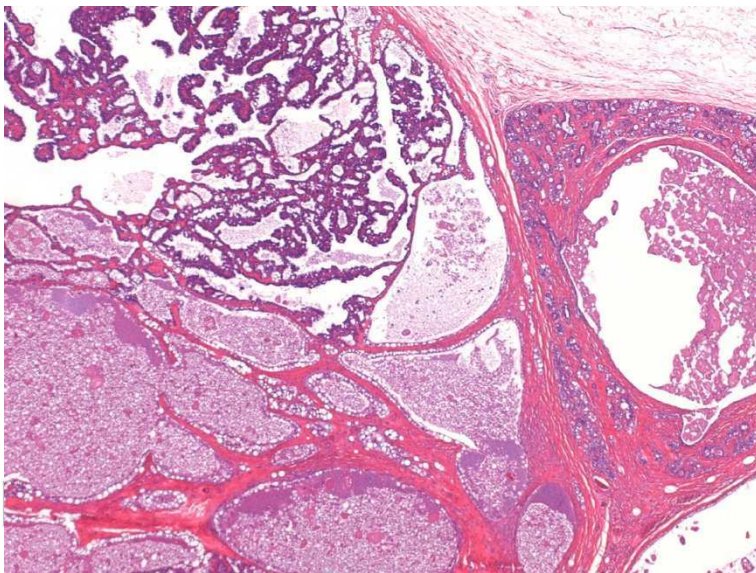
---

- Two distinct tumor types
- Differential Diagnose: Adenoacanthoma, Adenoma Fibroadenoma, Adenocarcinoma



# Mammary Gland, Rat: Carcinoma in Adenofibroma

---



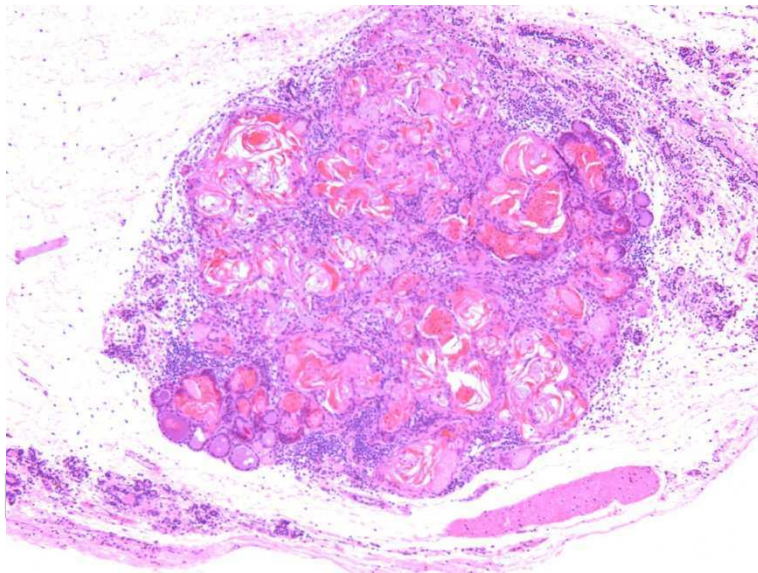
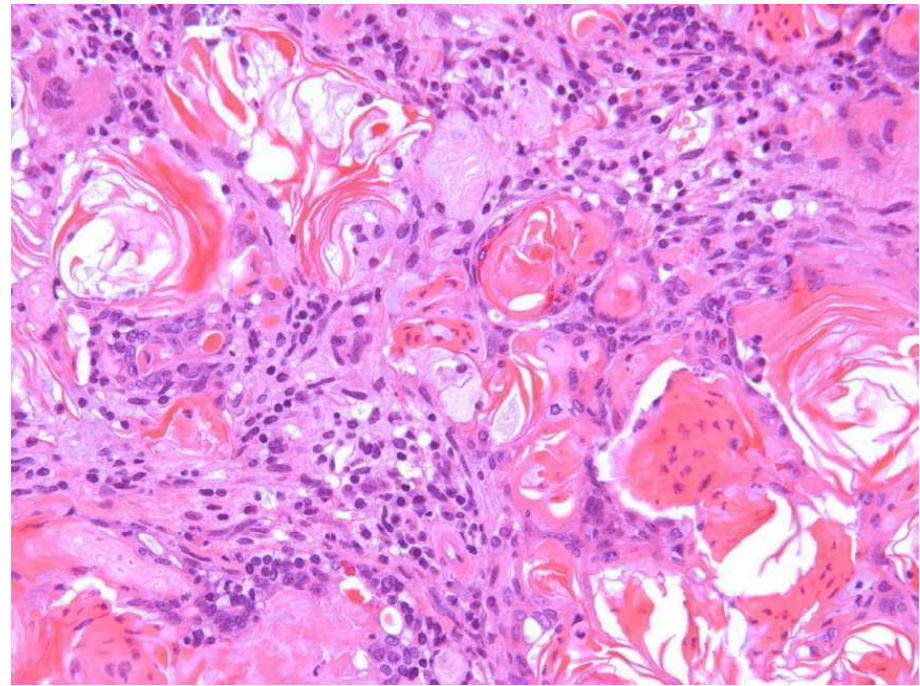
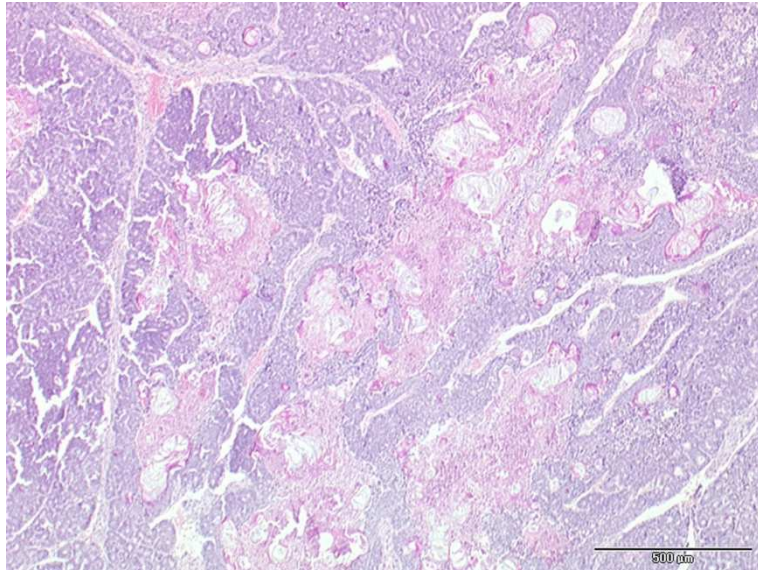
# Mammary Gland-Epithelial Neoplasms: Adenoacanthoma

---

- May be well circumscribed
- Glandular and squamous differentiation
- Squamous areas cover more than 25% of area
  
- Differential Diagnose: Adenocarcinoma, Squamous carcinoma

# Mammary Gland, Mouse: Adenoacanthoma

---



# Mammary Gland-Epithelial Neoplasms: Carcinosarcoma

---

- Malignant mixed tumor
  - Epithelial and mesenchymal components
- 
- Differential Diagnose: Adenocarcinoma

# Mammary Gland, Rat: Carcinosarcoma

