



Brooke Howitt

Associate Professor of Pathology

CLINICAL OFFICES

- **Surgical Pathology**

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Bio

BIO

Dr. Howitt is a gynecologic and sarcoma pathologist, with academic interests in gynecologic mesenchymal tumors and morphologic and clinical correlates of molecular alterations in gynecologic neoplasia.

CLINICAL FOCUS

- Anatomic Pathology
- Gynecologic Disease
- Endometrial Neoplasms
- Fallopian Tube Neoplasms
- Endometrial Stromal Tumors
- Vulvar Neoplasms
- Adenosarcoma
- Mesonephric Ducts

ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Pathology
- Member, Bio-X

PROFESSIONAL EDUCATION

- Medical Education: Stanford University School of Medicine (2010) CA
- Fellowship, Brigham and Women's Hospital , Women's and Perinatal Pathology (2014)
- Residency: Brigham and Women's Hospital (2013) MA
- Board Certification: Anatomic Pathology, American Board of Pathology (2013)

Publications

PUBLICATIONS

- **Nuclear Beta-Catenin Expression in the Context of Abnormal p53 Endometrial Carcinoma Indicates a Non-Serous Histotype**
Keyhanian, K., Yang, E., Howitt, B.
SPRINGERNATURE.2021: 704–5
- **Clinical Features of SARS-CoV-2 Infection During Pregnancy and Associated Placental Pathologies**
Brar, N., Ryan, E., Winn, V., Folkins, A., Howitt, B.
SPRINGERNATURE.2021: 656–57
- **Atypical Uterine Polyps Are Molecularly Heterogeneous and Share Genomic Features with Uterine Adenosarcoma and Banal Endometrial Polyps**
Chapel, D., Da Silva, A., Sholl, L., Howitt, B., Dal Cin, P., Nucci, M.
SPRINGERNATURE.2021: 663–64
- **Molecular Classification of Endometrial Carcinomas with Long-Term Follow-up**
Hammer, P., Albro, J., Squires, C., Peters-Schulze, G., Sharp, B., Charu, V., Cessna, M., Howitt, B.
SPRINGERNATURE.2021: 691–93
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SPRINGERNATURE.2021: 691–93
- **Corrigendum to "Pathological chemotherapy response score is prognostic in tubo-ovarian high-grade serous carcinoma: A systematic review and meta-analysis of individual patient data" *Gynecol. Oncol.* 154 (2019) 441-448. *Gynecologic oncology***
Cohen, P. A., Powell, A., Bohm, S., Gilks, C. B., Stewart, C. J., Meniawy, T. M., Bulsara, M., Avril, S., Brockbank, E. C., Bosse, T., de Azevedo Focchi, G. R., Ganesan, R., Glasspool, et al
2021
- **A Distinctive Adnexal (Usually Paratubal) Neoplasm Often Associated With Peutz-Jeghers Syndrome and Characterized by STK11 Alterations (STK11 Adnexal Tumor): A Report of 22 Cases. *The American journal of surgical pathology***
Bennett, J. A., Young, R. H., Howitt, B. E., Croce, S., Wanjari, P., Zhen, C., Da Cruz Paula, A., Meserve, E., Schoolmeester, J. K., Westbom-Fremer, S., Benzi, E., Patil, N. M., Kooreman, et al
2021
- **Ovariectomized mice and postmenopausal women exhibit analogous loss of genital epithelial integrity. *Tissue barriers***
Quispe Calla, N. E., Vicetti Miguel, R. D., Aceves, K. M., Huang, H., Howitt, B., Cherpes, T. L.
2021: 1865760
- **Update on SWI/SNF-related Gynecologic Mesenchymal Neoplasms: SMARCA4-deficient uterine sarcoma and SMARCB1-deficient vulvar neoplasms. *Genes, chromosomes & cancer***
Howitt, B. E., Folpe, A. L.
2020
- **Clinicopathologic Characteristics of Mesonephric Adenocarcinomas and Mesonephric-like Adenocarcinomas in the Gynecologic Tract: A Multi-institutional Study. *The American journal of surgical pathology***
Pors, J., Segura, S., Chiu, D. S., Almadani, N., Ren, H., Fix, D. J., Howitt, B. E., Kolin, D., McCluggage, W. G., Mirkovic, J., Gilks, B., Park, K. J., Hoang, et al

2020

- **Molecular Characterization of Neuroendocrine Carcinomas of the Endometrium: Representation in All 4 TCGA Groups.** *The American journal of surgical pathology*
Howitt, B. E., Dong, F., Vivero, M., Shah, V., Lindeman, N., Schoolmeester, J. K., Baltay, M., MacConaill, L., Sholl, L. M., Nucci, M. R., McCluggage, W. G.
2020
- **A Multiplex SNaPshot Assay is a Rapid and Cost-Effective Method for Detecting POLE Mutations in Endometrial Carcinoma**
Devereaux, K., Steiner, D., Ho, C., Gomez, A., Gojenola, L., Gilks, C., Longacre, T., Zehnder, J., Howitt, B., Suarez, C.
NATURE PUBLISHING GROUP.2020: 1040
- **Clinicopathologic and Immunohistochemical Correlates of CTNNB1 Mutated Endometrial Endometrioid Carcinoma** *INTERNATIONAL JOURNAL OF GYNECOLOGICAL PATHOLOGY*
Costigan, D. C., Dong, F., Nucci, M. R., Howitt, B. E.
2020; 39 (2): 119–27
- **Molecular Classification of Metastatic and Recurrent Endometrial Endometrioid Carcinoma**
Devereaux, K., Chow, S., Steiner, D., Peters-Schulze, G., Ho, C., Suarez, C., Folkins, A., Howitt, B.
NATURE PUBLISHING GROUP.2020: 1041–42
- **Molecular Classification of Metastatic and Recurrent Endometrial Endometrioid Carcinoma**
Devereaux, K., Chow, S., Steiner, D., Peters-Schulze, G., Ho, C., Suarez, C., Folkins, A., Howitt, B.
NATURE PUBLISHING GROUP.2020: 1041–42
- **Mullerian Adenosarcoma: Clinicopathologic Features of 78 cases**
Kolin, D., Howitt, B., Nathenson, M., Nucci, M.
NATURE PUBLISHING GROUP.2020: 1084–85
- **P120 Catenin Staining Patterns Differentiate Mullerian Carcinosarcoma from its Mimics**
Acosta, A., Howitt, B., Strickland, K., Mirkovic, J., Parra-Herran, C., Hirsch, M., Kolin, D., Nucci, M.
NATURE PUBLISHING GROUP.2020: 1002–3
- **P120 Catenin Staining Patterns Differentiate Mullerian Carcinosarcoma from its Mimics**
Acosta, A., Howitt, B., Strickland, K., Mirkovic, J., Parra-Herran, C., Hirsch, M., Kolin, D., Nucci, M.
NATURE PUBLISHING GROUP.2020: 1002–3
- **Mullerian Adenosarcoma: Clinicopathologic Features of 78 cases**
Kolin, D., Howitt, B., Nathenson, M., Nucci, M.
NATURE PUBLISHING GROUP.2020: 1084–85
- **Unusual Adnexal Tumors with Recurring STK11 Mutations: A Clinicopathological Study of 11 Cases Including 4 in Patients with Peutz-Jeghers Syndrome**
Bennett, J., Meserve, E., Howitt, B., Ritterhouse, L., Schoolmeester, J., Croce, S., Kooreman, L., El-Bahrawy, M., Zannoni, G., Krausz, T., McCluggage, W., Young, R., Oliva, et al
NATURE PUBLISHING GROUP.2020: 1016–17
- **Unusual Adnexal Tumors with Recurring STK11 Mutations: A Clinicopathological Study of 11 Cases Including 4 in Patients with Peutz-Jeghers Syndrome**
Bennett, J., Meserve, E., Howitt, B., Ritterhouse, L., Schoolmeester, J., Croce, S., Kooreman, L., El-Bahrawy, M., Zannoni, G., Krausz, T., McCluggage, W., Young, R., Oliva, et al
NATURE PUBLISHING GROUP.2020: 1016–17
- **5-hmC Immunohistochemistry is a Reliable Marker for Predicting Leiomyomas with Fumarate Hydratase Mutations**
Sharma, A., Forgo, E., Howitt, B., Rabban, J., Garg, K., Bennett, J.
NATURE PUBLISHING GROUP.2020: 1134–35
- **5-hmC Immunohistochemistry is a Reliable Marker for Predicting Leiomyomas with Fumarate Hydratase Mutations**
Sharma, A., Forgo, E., Howitt, B., Rabban, J., Garg, K., Bennett, J.
NATURE PUBLISHING GROUP.2020: 1134–35
- **DNA Methylation Profiling of Uterine Sarcomas**

Forgo, E., Lang, A., Natu, V., Longacre, T., Bennett, J., Quick, C., Parra-Herran, C., Nucci, M., Kolin, D., Howitt, B.
NATURE PUBLISHING GROUP.2020: 1056–57

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NATURE PUBLISHING GROUP.2020: 1056–57

- **A Multiplex SNaPshot Assay is a Rapid and Cost-Effective Method for Detecting POLE Mutations in Endometrial Carcinoma**

Devereaux, K., Steiner, D., Ho, C., Gomez, A., Gojenola, L., Gilks, C., Longacre, T., Zehnder, J., Howitt, B., Suarez, C.
NATURE PUBLISHING GROUP.2020: 1040

- **Vulvar sarcoma outcomes by histologic subtype: a Surveillance, Epidemiology, and End Results (SEER) database review.** *International journal of gynecological cancer : official journal of the International Gynecological Cancer Society*

Johnson, S. n., Renz, M. n., Wheeler, L. n., Diver, E. n., Dorigo, O. n., Litkouhi, B. n., Behbakht, K. n., Howitt, B. n., Karam, A. n.
2020

- **Criteria for Risk Stratification of Vulvar and Vaginal Smooth Muscle Tumors: A Follow Up Study with Application to Leiomyoma Variants, Smooth Muscle Tumors of Uncertain Malignant Potential (STUMP) and Leiomyosarcomas.** *Human pathology*

Swanson, A. A., Howitt, B. E., Schoolmeester, J. K.
2020

- **Malignant Tumors of the Uterus and Ovaries with Mullerian and Germ Cell or Trophoblastic Components Have a Somatic Origin and are Characterized by Genomic Instability.** *Histopathology*

Acosta, A. M., Sholl, L. M., Dal Cin, P. n., Howitt, B. E., Otis, C. N., Nucci, M. R.
2020

- **A Clinical and Pathologic Exploration of Suspected Peritoneal Endometriotic Lesions.** *International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists*

Watkins, J. C., DiVasta, A. D., Vitonis, A. F., Crum, C. P., Laufer, M. R., Terry, K. L., Howitt, B. E., Missmer, S. A.
2020

- **Corrigendum to "Pathological chemotherapy response score is prognostic in tubo-ovarian high-grade serous carcinoma: A systematic review and meta-analysis of individual patient data" [Gynecol. Oncol. 154 (2019) 441-448].** *Gynecologic oncology*

Cohen, P. A., Powell, A. n., Böhm, S. n., Gilks, C. B., Stewart, C. J., Meniawy, T. M., Bulsara, M. n., Avril, S. n., Brockbank, E. C., Bosse, T. n., de Azevedo Focchi, G. R., Ganesan, R. n., Glasspool, et al
2020

- **Germline mutations of SMARCA4 in small cell carcinoma of the ovary, hypercalcemic type and in SMARCA4-deficient undifferentiated uterine sarcoma: Clinical features of a single family and comparison of large cohorts.** *Gynecologic oncology*

Connor, Y. D., Miao, D., Lin, D. I., Hayne, C., Howitt, B. E., Dalrymple, J. L., DeLeonardis, K. R., Hacker, M. R., Esselen, K. M., Shea, M.
2019

- **LINEAGE CONTINUITY BETWEEN EARLY TUBAL SEROUS PROLIFERATIONS (ESPS/STILS) AND DISSEMINATED HIGH-GRADE SEROUS CARCINOMAS: A MODEL FOR "PRECURSOR ESCAPE"**

Soong, T., Howitt, B. E., Miron, A., Horowitz, N., Campbell, F., Feltmate, C. M., Muto, M. G., Berkowitz, R. S., Nucci, M. R., Xian, W., Crum, C. P.
AMER ASSOC CANCER RESEARCH.2019: 24

- **Targeted Genomic Profiling of Female Adnexal Tumors of Probable Wolffian Origin (FATWO)** *INTERNATIONAL JOURNAL OF GYNECOLOGICAL PATHOLOGY*

Mirkovic, J., Dong, F., Sholl, L. M., Garcia, E., Lindeman, N., MacConaill, L., Crum, C. P., Nucci, M. R., McCluggage, W., Howitt, B. E.
2019; 38 (6): 543–51

- **HPV 6-associated HSIL/Squamous Carcinoma in the Anogenital Tract** *INTERNATIONAL JOURNAL OF GYNECOLOGICAL PATHOLOGY*

Liu, M. Z., Hung, Y. P., Huang, E. C., Howitt, B. E., Nucci, M. R., Crum, C. P.
2019; 38 (5): 493–97

- **Evidence of a Monoclonal Origin for Bilateral Serous Tubal Intraepithelial Neoplasia** *INTERNATIONAL JOURNAL OF GYNECOLOGICAL PATHOLOGY*

Meserve, E. E., Strickland, K. C., Miron, A., Soong, T. R., Campbell, F., Howitt, B. E., Crum, C. P.
2019; 38 (5): 443–48

- **Pathological chemotherapy response score is prognostic in tubo-ovarian high-grade serous carcinoma: A systematic review and meta-analysis of individual patient data.** *Gynecologic oncology*

Cohen, P. A., Powell, A., Bohm, S., Gilks, C. B., Stewart, C. J., Meniawy, T. M., Bulsara, M., Avril, S., Brockbank, E. C., Bosse, T., de Azevedo Focchi, G. R., Ganesan, R., Glasspool, et al
2019

- **International Endocervical Adenocarcinoma Criteria and Classification (IECC): correlation with adverse clinicopathological features and patient outcome** *JOURNAL OF CLINICAL PATHOLOGY*
Hodgson, A., Olkhov-Mitsel, E., Howitt, B. E., Nucci, M. R., Parra-Herran, C.
2019; 72 (5): 347–53
- **Assessment of a Chemotherapy Response Score (CRS) System for Tubo-Ovarian High-Grade Serous Carcinoma (HGSC)** *INTERNATIONAL JOURNAL OF GYNECOLOGICAL PATHOLOGY*
Ditzel, H. M., Strickland, K. C., Meserve, E. E., Stover, E., Konstantinopoulos, P. A., Matulonis, U. A., Muto, M. G., Liu, J. F., Feltmate, C., Horowitz, N., Berkowitz, R. S., Gupta, M., Hecht, et al
2019; 38 (3): 230–40
- **Further Characterization of Classical Papillary Thyroid Carcinoma with "Hobnail-like" Features**
Chen, T., Wong, K., Higgins, S., Howitt, B., Barletta, J.
NATURE PUBLISHING GROUP.2019
- **Evidence That "Precursor Escape" From the Distal Fallopian Tube is an Important Mechanism For High-Grade Serous Carcinogenesis**
Tesch, N., Soong, T., Pinto, A., Howitt, B., Nucci, M., Kolin, D., Crum, C.
NATURE PUBLISHING GROUP.2019
- **Comprehensive Morphological and Molecular Analyses Establish Germline BRCA-Associated Endometrial Carcinoma as a Distinct Entity**
de Jonge, M., Ritterhouse, L., de Kroon, C., Vreeswijk, M., Segal, J., Puranik, R., van Asperen, C., Smit, V., Howitt, B., Bosse, T.
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- **Evidence That "Precursor Escape" From the Distal Fallopian Tube is an Important Mechanism For High-Grade Serous Carcinogenesis**
Tesch, N., Soong, T., Pinto, A., Howitt, B., Nucci, M., Kolin, D., Crum, C.
NATURE PUBLISHING GROUP.2019
- **SMARCA4-Deficient Uterine Sarcoma and Undifferentiated Endometrial Carcinoma are Distinct Clinicopathologic Entities**
Kolin, D., Quick, C., Dong, F., Fletcher, C., Crum, C., Nucci, M., Howitt, B.
NATURE PUBLISHING GROUP.2019
- **Comprehensive Genomic Profiling of HPV-related and Gastric-type Endocervical Adenocarcinoma**
Parra-Herran, C., Hodgson, A., Lindeman, N., Howitt, B., Nucci, M.
NATURE PUBLISHING GROUP.2019
- **Comprehensive Genomic Profiling of HPV-related and Gastric-type Endocervical Adenocarcinoma**
Parra-Herran, C., Hodgson, A., Lindeman, N., Howitt, B., Nucci, M.
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NATURE PUBLISHING GROUP.2019
- **Clear Cell Renal Cell Carcinoma With a Poorly-Differentiated Component: A Novel Variant Causing Potential Diagnostic Difficulty**
Taneja, K., Cheng, L., Al-Obaidy, K., Kao, C., Barletta, J., Howitt, B., Wasco, M., Palanisamy, N., Gupta, N., Rogers, C., Carskadon, S., Chen, Y., Antic, et al
NATURE PUBLISHING GROUP.2019
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NATURE PUBLISHING GROUP.2019
- **Further Characterization of Classical Papillary Thyroid Carcinoma with "Hobnail-like" Features**
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NATURE PUBLISHING GROUP.2019

- **Clinicopathologic and Immunohistochemical Correlates of CTNNB1 Mutated Endometrial Endometrioid Carcinoma.** *International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists*
Costigan, D. C., Dong, F., Nucci, M. R., Howitt, B. E.
2019
- **International Endocervical Adenocarcinoma Criteria and Classification (IECC): correlation with adverse clinicopathological features and patient outcome.** *Journal of clinical pathology*
Hodgson, A., Olkhov-Mitsel, E., Howitt, B. E., Nucci, M. R., Parra-Herran, C.
2019
- **Genomic Characterization of HPV-related and Gastric-type Endocervical Adenocarcinoma: Correlation With Subtype and Clinical Behavior.** *International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists*
Hodgson, A. n., Howitt, B. E., Park, K. J., Lindeman, N. n., Nucci, M. R., Parra-Herran, C. n.
2019
- **SMARCA4-deficient Uterine Sarcoma and Undifferentiated Endometrial Carcinoma are Distinct Clinicopathologic Entities.** *The American journal of surgical pathology*
Kolin, D. L., Quick, C. M., Dong, F. n., Fletcher, C. D., Stewart, C. J., Soma, A. n., Hornick, J. L., Nucci, M. R., Howitt, B. E.
2019
- **A Potential Diagnostic Pitfall for Hobnail Variant of Papillary Thyroid Carcinoma.** *Histopathology*
Wong, K. S., Chen, T. Y., Higgins, S. E., Howitt, B. E., Lorch, J. H., Alexander, E. K., Marqusee, E. n., Cho, N. L., Nehs, M. A., Doherty, G. M., Barletta, J. A.
2019
- **International Endocervical Adenocarcinoma Criteria and Classification Validation and Interobserver Reproducibility** *AMERICAN JOURNAL OF SURGICAL PATHOLOGY*
Hodgson, A., Park, K. J., Djordjevic, B., Howitt, B. E., Nucci, M. R., Oliva, E., Stolnicu, S., Xu, B., Soslow, R. A., Parra-Herran, C.
2019; 43 (1): 75–83
- **Uterine Mesenchymal Tumors: Update on Classification, Staging, and Molecular Features.** *Surgical pathology clinics*
Parra-Herran, C. n., Howitt, B. E.
2019; 12 (2): 363–96
- **Practical Issues and Updates in Gynecologic Pathology.** *Surgical pathology clinics*
Howitt, B. E.
2019; 12 (2): xi-xii
- **Germline BRCA-associated Endometrial Carcinoma is a Distinct Clinicopathologic Entity.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
de Jonge, M. M., Ritterhouse, L. L., de Kroon, C. D., Vreeswijk, M. P., Segal, J. P., Puranik, R. n., Study, H. n., Hollema, H. n., Rookus, M. A., van Asperen, C. J., Van Leeuwen, F. E., Smit, V. T., Howitt, et al
2019
- **The fallopian tube, "precursor escape" and narrowing the knowledge gap to the origins of high-grade serous carcinoma.** *Gynecologic oncology*
Soong, T. R., Howitt, B. E., Horowitz, N., Nucci, M. R., Crum, C. P.
2018
- **A Combined Morphologic and Molecular Approach to Retrospectively Identify KRAS-Mutated Mesonephric-like Adenocarcinomas of the Endometrium.** *The American journal of surgical pathology*
Kolin, D. L., Costigan, D. C., Dong, F., Nucci, M. R., Howitt, B. E.
2018
- **Evidence for lineage continuity between early serous proliferations (ESPs) in the Fallopian tube and disseminated high-grade serous carcinomas** *JOURNAL OF PATHOLOGY*
Soong, T., Howitt, B. E., Miron, A., Horowitz, N. S., Campbell, F., Feltmate, C. M., Muto, M. G., Berkowitz, R. S., Nucci, M. R., Xian, W., Crum, C. P.
2018; 246 (3): 344–51
- **Clinicopathologic and Immunohistochemical features of uterine Adenomyomatous polyps.** *Human pathology*
Strickland, K. C., Yuan, L., Quade, B. J., Nucci, M. R., Howitt, B. E.

2018

- **HPV 6-associated HSIL/Squamous Carcinoma in the Anogenital Tract.** *International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists*
Liu, M. Z., Hung, Y. P., Huang, E. C., Howitt, B. E., Nucci, M. R., Crum, C. P.
2018
- **Inter-pathologist and pathology report agreement for ovarian tumor characteristics in the Nurses' Health Studies** *GYNECOLOGIC ONCOLOGY*
Barnard, M. E., Pyden, A., Rice, M. S., Linares, M., Tworoger, S. S., Howitt, B. E., Meserve, E. E., Hecht, J. L.
2018; 150 (3): 521–26
- **SMARCA4-deficient undifferentiated uterine sarcoma (malignant rhabdoid tumor of the uterus): a clinicopathologic entity distinct from undifferentiated carcinoma** *MODERN PATHOLOGY*
Kolin, D. L., Dong, F., Baltay, M., Lindeman, N., MacConaill, L., Nucci, M. R., Crum, C. P., Howitt, B. E.
2018; 31 (9): 1442–56
- **Targeted Genomic Profiling of Female Adnexal Tumors of Probable Wolffian Origin (FATWO).** *International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists*
Mirkovic, J., Dong, F., Sholl, L. M., Garcia, E., Lindeman, N., MacConaill, L., Crum, C. P., Nucci, M. R., McCluggage, W. G., Howitt, B. E.
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- **Evidence of a Monoclonal Origin for Bilateral Serous Tubal Intraepithelial Neoplasia.** *International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists*
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- **Assessment of a Chemotherapy Response Score (CRS) System for Tubo-Ovarian High-Grade Serous Carcinoma (HGSC).** *International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists*
Ditzel, H. M., Strickland, K. C., Meserve, E. E., Stover, E., Konstantinopoulos, P. A., Matulonis, U. A., Muto, M. G., Liu, J. F., Feltmate, C., Horowitz, N., Berkowitz, R. S., Gupta, M., Hecht, et al
2018
- **Solitary fibrous tumour of the female genital tract: a clinicopathological analysis of 25 cases** *HISTOPATHOLOGY*
Yang, E. J., Howitt, B. E., Fletcher, C. M., Nucci, M. R.
2018; 72 (5): 749–59
- **Mesonephric proliferations of the female genital tract** *PATHOLOGY*
Howitt, B. E., Nucci, M. R.
2018; 50 (2): 141–50
- **WITHDRAWN: International Society of Gynecological Pathologists (ISGyP) Endometrial Cancer Project: Guidelines From the Special Techniques and Ancillary Studies Group.** *International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists*
Cho, K. R., Cooper, K., Croce, S., Djordjevic, B., Herrington, S., Howitt, B., Hui, P., Ip, P., Koebel, M., Lax, S., Quade, B. J., Shaw, P., Vidal, et al
2018
- **Targeted Genomic Profiling Reveals Recurrent KRAS Mutations in Mesonephric-like Adenocarcinomas of the Female Genital Tract.** *The American journal of surgical pathology*
Mirkovic, J. n., McFarland, M. n., Garcia, E. n., Sholl, L. M., Lindeman, N. n., MacConaill, L. n., Dong, F. n., Hirsch, M. n., Nucci, M. R., Quick, C. M., Crum, C. P., McCluggage, W. G., Howitt, et al
2018; 42 (2): 227–33
- **Targeted next-generation sequencing in the detection of mismatch repair deficiency in endometrial cancers.** *Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc*
Dong, F. n., Costigan, D. C., Howitt, B. E.
2018
- **PDGFB Rearrangements in Dermatofibrosarcoma Protuberans of the Vulva: A Study of 11 Cases Including Myxoid and Fibrosarcomatous Variants.** *International journal of gynecological pathology : official journal of the International Society of Gynecological Pathologists*
Jahanseir, K. n., Xing, D. n., Greipp, P. T., Sukov, W. R., Keeney, G. L., Howitt, B. E., Schoolmeester, J. K.
2018; 37 (6): 537–46

- **Frequency of "incidental" serous tubal intraepithelial carcinoma (STIC) in women without a history of or genetic risk factor for high-grade serous carcinoma: A six-year study.** *Gynecologic oncology*
Meserve, E. E., Mirkovic, J., Conner, J. R., Yang, E., Muto, M. G., Horowitz, N., Strickland, K. C., Howitt, B. E., Crum, C. P.
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