

# Charles V. Clevenger, MD, PhD

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Chair, Department of Pathology 2013-2022  
Carolyn Wingate Hyde Endowed Chair in Cancer Research  
Cytopathology  
Virginia Commonwealth University  
[Charles.Clevenger@vcuhealth.org](mailto:Charles.Clevenger@vcuhealth.org)  
Office: (804) 828-0183  
Fax: (804) 828-9749

## Licenses & Certifications

### *Medical License*

Virginia

### *Board Certifications*

American Board of Pathology (Anatomic Pathology)  
American Board of Pathology (Cytopathology)

## Education

### *Postgraduate Medical Training*

Resident, Department of Pathology & Laboratory Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA

Fellow in Cytopathology, Department of Pathology & Laboratory Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA

### *Medical Education*

M.D., 1987, Northwestern University Medical School, Chicago, IL

### *Graduate Education*

Ph.D., 1986, Tumor Cell Biology Program, Northwestern University Medical School, Chicago, IL

## Awards

- 2021 Outstanding Educator in Undergraduate Medical Education, Best Teacher in Basic Sciences
- 2013 Carolyn Wingate Hyde Endowed Chair in Cancer Research, VCU
- 2009-12 Outstanding Faculty Teaching Recognition, Scientific Basis of Medicine, Northwestern University Feinberg School of Medicine
- 2005 Diana, Princess of Wales Professor of Cancer Research, Northwestern University
- 2003 Pfizer Outstanding Investigator Award, American Society for Investigative Pathology

## VCUHS Service

- 2013-2022 Chair, Department of Pathology, Virginia Commonwealth University
- 2018 Board of Directors, Medical College of Virginia Practice Plan VCUHS
- 2017 Co-chair, SOM Strategic Marketing and Communications Task Force
- 2016-19 Interim Associate Director, Basic Sciences, Massey Cancer Center
- 2015-20 Lead, VCUHS Precision Medicine
- 2013 Professor of Pathology (with tenure), Virginia Commonwealth University

## Professional Organizations

- American Association for Cancer Research
- American Association of University Pathologists

American Society for Clinical Investigation  
American Society for Investigative Pathology  
College of American Pathologists  
Endocrine Society  
United States & Canadian Academy of Pathology  
Metastasis Research Society

## Editorial and Advisory Positions

Editorial Board Member, Breast Disease 2004 to present  
Editorial Board Member, Journal of the Endocrine Society 2018-2020  
Scientific Advisory Board, Cooperative Human Tissue Network, NCI 2018  
Referee, (past 5 years): *Academic Pathology* 2021  
*American Journal of Clinical Pathology* 2017  
*Breast Cancer Research* 2016-18  
*Cancer Research* 1992-20  
*Clinical Cancer Research* 2017  
*Cancer Prevention Research* 2020  
*Endocrinology* 2018-20  
*Exp Op Therap Targets* 2020  
*FASEB J* 2021  
*Hormones and Cancer* 2018-20,

## Principal Investigator of Grants

### Current

- 2022-2025 "Translational research center in lung cancer disparities", NIH RFA-CA-19-034, Biorepository Core Project Lead, 5%.
- 2018-2021 "HDAC6 as a therapeutic target in breast cancer", PI, Commonwealth Health Research Board, \$200,000.
- 2018-2020 "Inhibition of breast cancer metastatic outgrowth with non-immunosuppressive cyclosporines", PI, Metavivor Research Foundation, \$200,000.

2014-2019 "Prolyl isomerase function during Jak/Stat signaling in breast cancer", PI, NIH 1R01 CA173305, \$1,250,000.

*Pending:*

2022-2027- "The human PRLr1 as a mammary proto-oncogene", PI, NIH R01, \$1,250,000.

2022-2027 - "The Stat5 complex as an oncogenic driver in breast cancer", PI, NIH R01, \$1,250,000.

## Recent Invited Presentations

November, 2021 "Precision Medicine in Oncology: Current status and future directions", Oncology Grand Rounds, William Beaumont Health System, Dearborn, MI.

July 2019 "The prolactin receptor as a mammary oncogene", FASEB Summer Research Conference on the GH/PRL Family, West Palm Beach, FL.

August 2018 "Cyclophilin A regulates mammary development, tumorigenesis, and metastatic outgrowth", Meeting of the Metastasis Research Society, Princeton, NJ.

March 2018 "Prolactin-Stat5 regulation of breast cancer", ENDO 2018, Chicago, IL.

April 2016 Chair, ENDO 2016, Symposium on "Role of Prolactin in Health and Disease", Boston, MA.

# Recent Publications

## *Peer Reviewed Publications*

Craig JM, Turner TH, Harrell JC, **Clevenger CV**: Prolactin drives a dynamic STAT5A/HDAC6/HMGN2 cis-regulatory landscape exploitable in ER+ breast cancer. *Endocrinology*, 162:1-23, 2021.

Grible JM, Zot P, Olex AL, Hedrick SE, Harrell JC, Woock AE, Idowu M, **Clevenger CV**: The human intermediate prolactin receptor is a mammary proto-oncogene. *Nature (npj) Breast Cancer*, 7:37-48, 2021.

Woock AE, Grible JM, Olex AL, Harrell JC, Zot P, Idowu M, **Clevenger CV**: S726 and S780 have nonredundant roles regulating Stat5a activity in breast cancer. *Scientific Reports*, 11:13506, 2021.

Rashed, N.S., Grible JM. **Clevenger CV**, Harrell JC: Breast cancer metastasis: Current and future treatment approaches. *Clin Exp Metastasis*, 38: 263-277, 2021.

Hakim S, Hedrick SE, Craig JM, **Clevenger CV**: The inhibition of cyclophilin A by NIM811 regulates PRLr/Jak2 complex signaling, mammary tumorigenesis and metastases. *iScience*, 23:101581, 2020.

Wiles AB, Idowu MO, **Clevenger CV**, Powers CN: Evaluating non-clinical performance of the academic pathologist: a comprehensive, scalable, and flexible system for leadership use. *Acad Pathol*, 5:1-7, 2018.

Mapes J, Anandan L, Li Q, **Clevenger CV**, Bagchi I, Bagchi M: Aberrantly high expression of the Stat5 signaling regulator CUZD1 in mammary epithelium leads to breast tumorigenesis. *J Biol Chem*, 293: 2850-2864, 2018.

Volker SE, Hedrick SE, Feeney YB, **Clevenger CV**: Cyclophilin A function impacts Jak2/Stat5 signaling, morphogenesis, differentiation, and tumorigenesis in the mammary gland. *Cancer Res*, 78:1-11, 2018.

Li J, Rice MS, Huang T, Hankinson S, **Clevenger CV**, Hu FB, Tworoger SS: Circulating prolactin concentrations and risk of type 2 diabetes in US women. *Diabetologia*, 61:2549-2560, 2018.

*Editorials, Reviews, Book Chapters (Peer and Non-Peer Reviewed)*

**Clevenger CV** and Rui HR: Breast cancer and prolactin – new mechanisms and models. *Endocrinology*, 163:122-133, 2022.

Raman T, **Clevenger CV**, Kaklamani V, Lauriello J, Malwitz K, Kirkland R: Antipsychotic treatment in breast cancer patients. *Am J Psych*, 171:616-621, 2014.

**Clevenger CV** and Kossiakof A: Growth hormone and prolactin family of hormones and receptors. In: Functioning fo Transmembrane Receptors in Cell Signaling. Elsevier Press, 2012.

**Clevenger CV** and Kossiakof A: Growth hormone and prolactin receptor complexes: Structural basis for receptor activation and regulation. In: *Handbook of Cell Signaling, 2<sup>nd</sup> edition*, Vol. 1, Chapter 36, pgs 237-243, Elsevier Press, 2009.