

University of South Dakota
Sanford School of Medicine

Department of Pathology
2019 Annual Report

Michael R. D. Koch, M.D.

Professor and Chair

Department of Pathology

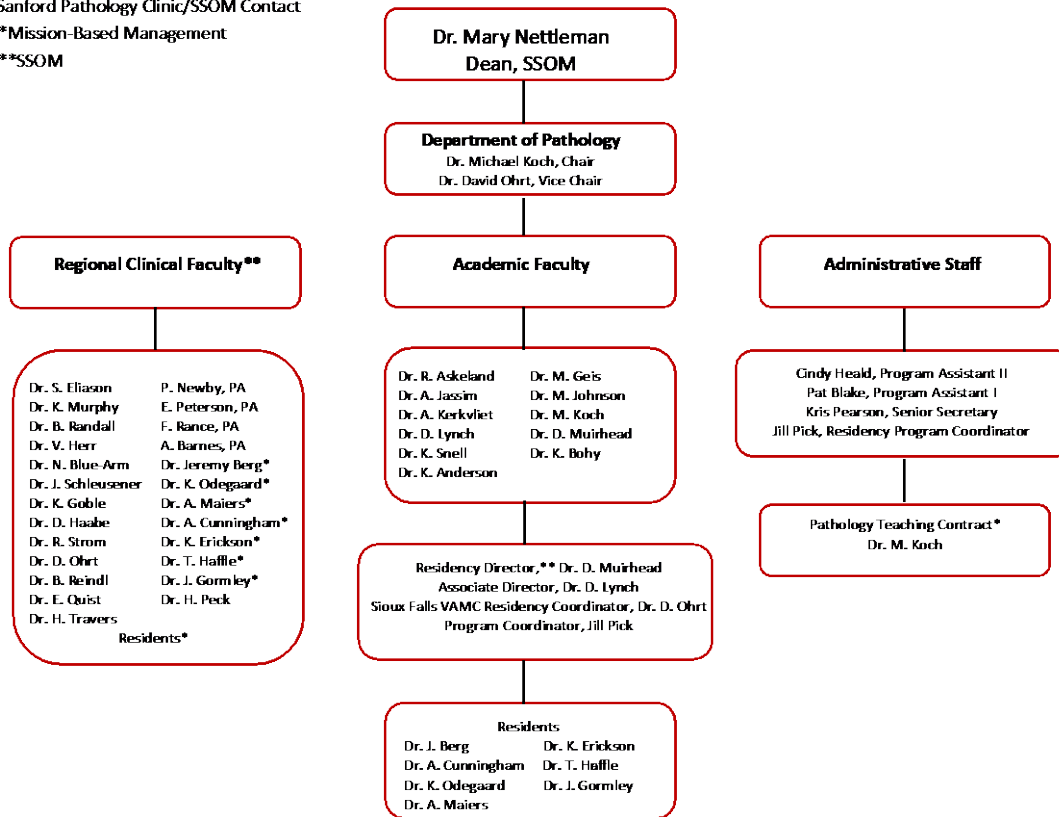
August 7, 2019

Pathology Department Priorities

- The Department of Pathology strives to support the Sanford School of Medicine in the areas of education, research and service.
- The Department does, however, place its main emphasis on undergraduate and graduate medical education.

Department Organizational Chart

*Sanford Pathology Clinic/SSOM Contact
 **Mission-Based Management
 ***SSOM



Department Academic Administration

Chair



Michael R. D. Koch, M.D.

Vice Chair



Douglas Lynch, M.D.

Department Academic Faculty



Keith A. Anderson, M.D.



Ryan Askeland, M.D.



Kimberlee C. Bohy, M.D.



Michael C. Geis, M.D.



Ali D. Jassim, M.D., Ph.D.



Mark W. Johnson, M.D.

Department Academic Faculty



Amy Kerkvliet, M.D.



Michael R. D. Koch, M.D.



Douglas Lynch, M.D.



DesiRae M. Muirhead, M.D.



Kenneth Snell, M.D.

Regional Clinical Faculty

Angela Barnes, P.A.

Nicole Blue Arm, M.D.

Arwyn Cunningham, D.O.

Susan Eliason, M.D.

Kia Erickson, M.D.

Kimberly Goble, M.D.

Joseph Gormley, M.D.

Don Haabe, M.D.

Tyler Haffler, M.D.

Victoria Herr, M.D.

Karla Murphy, M.D.

Lauren Murer, M.D.

David Ohrt, Ph.D., M.D.

Karah Odegaard, M.D.

Heather Peck, M.D.

Erica Peterson, P.A.

Erin Quist, M.D.

Brad Randall, M.D.

Bailey Reindl, M.D.

Jeff Schleusener, M.D.

Richard Strom, M.D.

Henry Travers, M.D.

Department Administrative Staff



Pat Blake - Senior Secretary



Kris Pearson - Senior Secretary



Jill Pick - Residency Program Coordinator

Faculty and Staff Retirements



Cindy Heald - Department Manager/PAII

Retired July 2019



Keith A. Anderson, M.D.

Retiring December 2019

New Faculty Hires



B. Joel Tjarks, M.D.
July 2019 start date



Ashwyna Sunasee, M.D.
September 2019 start date

Education

- Undergraduate Medical Education
 - Pillar I Educational Activities
 - The department has fully integrated into the Pillar I curriculum, lecturing in 9 of the 10 Pillar I blocks
 - Dr. Koch continues as the co-course director of the Hematology/Hemostasis Block
 - Pillar I students are also encouraged to visit the department in their “white space” time
 - » Seven MSI students spent time in the department this last year
 - Faculty Pillar I lectures
 - » Dr. Michael Koch
 - Blood Banking
 - Blood Gases
 - Bone Pathology
 - Breast Pathology
 - Dermatopathology
 - Endocrine Pathology
 - Female Genital Tract Pathology
 - Genetics
 - GI Tract and Pancreas Pathology
 - Head, Neck and Ocular Pathology
 - Hematopathology
 - Hemostasis
 - Laboratory Methods and Statistics
 - Liver/Gall Bladder Pathology

Education

- Undergraduate Medical Education
 - Pillar I Educational Activities
 - Faculty Pillar I lectures
 - » Dr. Michael Koch
 - Male GU/Bladder Pathology
 - Muscle Pathology
 - Neoplasia
 - Neuropathology (CNS and PNS)
 - Nutrition
 - Pediatric Pathology
 - Pre- and Post-test reviews/remediation
 - Pulmonary Pathology
 - Renal Pathology
 - Spleen/Lymph Node Pathology
 - Soft Tissue Pathology
 - Surgical Pathology Diagnostic Methods
 - Urinalysis
 - » Dr. Kenneth Snell
 - Autopsy/Forensic Pathology
 - Environmental Pathology
 - » Dr. Karah Odegaard
 - Acute and Chronic Inflammation
 - Cell Injury and Cell Death
 - Diseases of Immunity
 - Hemodynamics, Thromboembolic Disease and Shock
 - Tissue Repair
 - Continued excellent GQ ratings for our teaching efforts in Pillar I

Education

- Undergraduate Medical Education

- Pillar II Educational Activities
 - Nine students participated in Pathology “White Space Time” in the 2018-2019 school year
 - Five of these students have expressed an interest in a career in Pathology
- Pillar III Educational Activities
 - Pathology Electives (MSIV)
 - » Flexible as to length of rotation and rotation content
 - » Efforts are made to tailor the rotation to meet the students’ future needs
 - » Sites and Coordinators
 - Michael Geis, M.D. – Sanford Health/Sioux Falls campus
 - Bailey Reindle, M.D. – McKennan Avera Health/Sioux Falls campus
 - Richard Strom, M.D. – Yankton campus
 - Victoria Herr, M.D. – Rapid City campus
 - » The majority of students are Sanford students, but non-Sanford, prospective pathology residents may also take an elective - **if the time slot is open**
 - » Education

– Undergraduate Medical Education

- Pillar III Educational Activities
 - Pathology Electives (MSIV)
 - » 2017-2018 electives per site
 - Sanford USD Medical Center/ SF VA Medical Center
 - 7 students in 2017-2018
 - Rapid City Regional Hospital
 - 5 students in 2017-2018
 - Avera/Sacred Heart Hospital
 - 11 students in 2017-2018
 - Avera/McKenna
 - 6 students in 2017-2018
 - » 29 students this year as compared to 30 last year and 14 the year before

Education

- Undergraduate Medical Education

- Pathology Interest Group (MSI - MSIV)
 - The Student Club for Ongoing Pathology Education, or **SCOPE**, founded in 2104, continues to foster student interest in Pathology
 - Spring and Fall events are scheduled annually and have been well attended
 - 61 students attended the Fall 2018 meeting and 11 students attend the Spring 2019 meeting
 - 46 students attend the noon "Pathology as a Career" presentation in Vermillion
 - Emily Penning, MSIII and Eli Louwagie, MD/PhD candidate served as the president and vice president of the organization last year and will continue in those offices this year.
- Graduate Medical Education
 - Pathology Residency Program
 - A Sanford USD Medical Center/VA based Pathology Residency
 - » Has been in existence since the 1960's
 - » Dr. Barry Pitt-Hart - First program graduate

Education

- Graduate Medical Education

- Pathology Residency Program
 - Program Director
 - » DesiRae Muirhead, M.D.
 - Assistant Program Director
 - » Doug Lynch, M.D.
 - Program Coordinator
 - » Jill Pick
 - Currently fully approved and funded for up to ten positions
 - » Currently three at the VA Medical Center and seven at Sanford USD Medical Center
 - 56 program graduates to date
 - » 33 SSOM graduates
 - » 16 practicing in South Dakota
 - » 20 practicing elsewhere in the Midwest

Education

- Graduate Medical Education
 - Pathology Residency Program

- 2019 Resident In-service Exam (RISE)
 - » The current residents, as a residency program, scored in the 40th percentile nationally
 - » Individual percentile scores ranging from the 20th percentile to the 75th percentiles
- Excellent American Board of Pathology pass rate

Education

- Graduate Medical Education
 - Pathology Residency Program
 - 2019 Pathology Residency Graduates



Jeremy Berg, M.D.

Cleveland Clinic Fellowship in Forensic Pathology

– Current Pathology Residents

» PG-IV

- Arwyn Cunningham, D.O., Chief Resident
- Joseph Gormley, M.D. #*

» PG-II

- Karah Odegaard, M.D. #*

» PG-II

» Kia Erickson, M.D.#

» Tyler Haffler, M.D.

Education

– Graduate Medical Education

- Pathology Residency Program
 - Current Pathology Residents
 - » PG-I

- Jacky Akhter, M.D.



- St. George's University SOM

- Kayla Hoerschgen, M.D.



- Creighton SOM

Education

- Graduate Medical Education

- Pathology Residency Program

- Current Pathology Residents

- Dylan Pratt, M.D.



- University of Texas Medical Branch
SOM

#SD native *SSOM graduate

- Recruitment

- » Already receiving requests for Pillar III rotations from interested medical students
 - » S.C.O.P.E. continues to be a good recruitment tool for our residency program and we are planning for our and fall event

Education

- Continuing Medical Education

- The Department provides quarterly Neuropathology and Dermatopathology CME sessions
- Service Conferences
 - Present at Sanford USD Medical Center Tumor Conferences, Lung Conferences, Neurology/Neurosurgery Conferences, Breast Conferences and GI Conferences
 - Present at the Sioux Falls VAMC Tumor Board and M&M conferences
- The academic faculty also provide continuing education to physicians and laboratorians at 40 locations in South Dakota, southwest Minnesota, northwest Iowa and northeast Nebraska
- Faculty Development Sessions
 - Dr. Keith Anderson, M.D., Sanford Health and Sanford School of Medicine gave a faculty development session "Handling Medicolegal Issues" on October 2, 2018

Education

- Medical Laboratory Science Education

- Dr. Michael Geis serves as the director for the Sanford Medical Laboratory Science Program
- The Sanford USD Medical Center Medical Laboratory Science Program currently provides the clinical component for Medical Technology/Clinical Laboratory students from local colleges and universities
- Consists of one year of didactics and hands on experience in the Sanford USD Medical Center Laboratory
- Faculty
 - Sanford School of Medicine Pathology Academic Faculty
 - Sanford School of Medicine Pathology Residents (Clinical Instructors)
 - Sanford USD Medical Center Technologists

Research and Scholarly Activities

- Articles/Editorials

- **Keith Anderson, M.D.**
 - Sunassee A, Mackey J, **Anderson KA**, Huntington MK. Acute Hemolytic Transfusion Reaction Due to Anti-Kpa Antibody. S D Med. 2018 May;71(5):222-223. PubMed PMID: 29999609.

- **Jeremy Berg, M. D.**
 - Aloreidi K, **Berg J**, Patel B, Atiq M. “Unusual cutaneous Metastasis of Pancreatic Adenocarcinoma”. ACG Case Reports Journal. 2018. 4:e58. PMID: 28459082.
 - Aloreidi K, Dodin J, **Berg J**, Hoffman W. “Brain Tuberculoma: A Case Report and Literature Review”. South Dakota Medicine. 2018. July; 70(7).

- **Ali D. Jassim, M. D., Ph.D.**
 - "Primary Cutaneous Osteosarcoma". Fiegen AP, Tjarks BJ, **Jassim AD**. S D Med. 2018 Apr;71(4):164-166. PMID: 29996033
 - "Scleroderma-like skin changes induced by checkpoint inhibitor therapy". Tjarks BJ, Kerkvliet AM, **Jassim AD**, Bleeker JS. J Cutan Pathol. 2018 Aug;45(8):615-618. doi: 10.1111/cup.13273. Epub 2018 Jun 12. PMID: 29740855
 - Barbour M, Bujold KE, Tjarks BJ, **Jassim AD**. A Case of Small Cell LungCarcinoma in a 15-Year-Old Boy and Literature Review. J Pediatr Hematol Oncol.2018 Oct;40(7):563-566. doi:

10.1097/MPH.0000000000001089. PubMed
PMID: 29401104

- Tjarks BJ, **Kerkvliet AM**, Jassim AD. Sebaceous Carcinoma in Situ Masquerading Clinically and Histologically as Paget Disease of the Breast. *S D Med*. 2018 Aug;71(8):350-353. PubMed PMID: 30110525.

- **Amy Kerkvliet, M. D.**

- "Scleroderma-like skin changes induced by checkpoint inhibitor therapy". Tjarks BJ, **Kerkvliet AM**, Jassim AD, Bleeker JS. *J Cutan Pathol*. 2018 Aug;45(8):615-618. doi: 10.1111/cup.13273. Epub 2018 Jun 12. PMID: 29740855.
- Tjarks BJ, **Kerkvliet AM**, Jassim AD. Sebaceous Carcinoma in Situ Masquerading Clinically and Histologically as Paget Disease of the Breast. *S D Med*. 2018 Aug;71(8):350-353. PubMed PMID: 30110525.

- **Doug W. Lynch, M. D.**

- Gali V, Bleeker JS, Lynch D. Epstein-Barr Virus Positive Mucocutaneous Ulcer: A Case Report. *S D Med*. 2018 Jun;71(6):252-255. PubMed PMID: 30005148.

- **DesiRae Muirhead, M. D.**

- Madeo M, Colbert P, Vermeer D, Lucio C, Cain J, Vichaya E, Grossberg A, Muirhead D, Rickle A, Hong Z, Zhao J, Weimer J, Spanos W, Lee J,

Dantzer R, Vermeer P. Cancer Exosomes Induce Tumor Innervation. NATURE COMMUNICATIONS. (2018) 9:4284 DOI: 10.1038/s41467-018-06640-0

- **Karla Murphy, M.D.**

- Forster M, Mark A, Egberts F, Rosati E, Rodriguez E, Stanulla M, Bauerschlag D, Schem C, Maass N, Amallraja A, **Murphy KK**, Prouse BR, Sulaiman RA, Young BM, Mathiak M, Hemmrich-Stanisak G, Ellinghaus D, Weidinger S, Rosenstiel P, Arnold N, Leyland-Jones B, Williams CB, Franke A, Meißner T. RNA based individualized drug selection in breast cancer patients without patient-matched normal tissue. *Oncotarget*. 2018 Aug 17;9(64):32362-32372. doi: 10.18632/oncotarget.25981. eCollection 2018 Aug 17. PubMed PMID: 30190792; PubMed Central PMCID: PMC6122351.

- **Brad Randall, M. D.**

- Wilson AL, Hemmingson T, **Randall BB**. State of South Dakota's Child: 2018. *SD Med*. 2018;72(1): 6-11.

- **Ashwyya Sunassee, M. D.**

- **Sunassee A**, Mackey J, Anderson KA, Huntington MK. Acute Hemolytic Transfusion Reaction Due to Anti-Kpa Antibody. *S D Med*.

2018 May;71(5):222-223. PubMed PMID: 29999609.

- **B. Joel Tjarks, M.D.**

- Barbour M, Bujold KE, Tjarks BJ, **Jassim AD**. A Case of Small Cell LungCarcinoma in a 15-Year-Old Boy and Literature Review. J Pediatr Hematol Oncol.2018 Oct;40(7):563-566. doi: 10.1097/MPH.0000000000001089. PubMed PMID: 29401104
- "Scleroderma-like skin changes induced by checkpoint inhibitor therapy". **Tjarks BJ**, Kerkvliet AM, Jassim AD, Bleeker JS. J Cutan Pathol. 2018 Aug;45(8):615-618. doi: 10.1111/cup.13273. Epub 2018 Jun 12. PMID: 29740855
- Tjarks BJ, **Kerkvliet AM**, Jassim AD. Sebaceous Carcinoma in Situ MasqueradingClinically and Histologically as Paget Disease of the Breast. S D Med. 2018Aug;71(8):350-353. PubMed PMID: 30110525.
- "Primary Cutaneous Osteosarcoma". Fiegen AP, **Tjarks BJ**, Jassim AD. S D Med. 2018 Apr;71(4):164-166. PMID: 29996033.

- **Henry Travers, M.D.**

- Waligoske K, Travers H. Santayana's Axiom: The South Dakota State MedicalAssociation and Medical Practice Legislation in 1929 and 2017. S

D Med. 2018Sep;71(9):406-414. PubMed PMID: 30308120.

– Abstracts

• **Ali Jassim, M. D., PhD.**

- "Scleroderma-like skin changes induced by checkpoint inhibitor therapy". Tjarks BJ, Kerkvliet AM, **Jassim AD**, Bleeker JS. J Cutan Pathol. 2018 Aug;45(8):615-618. doi: 10.1111/cup.13273. Epub 2018 Jun 12. PMID: 29740855.

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- "Scleroderma-like skin changes induced by checkpoint inhibitor therapy". Tjarks BJ, **Kerkvliet AM**, Jassim AD, Bleeker JS. J Cutan Pathol. 2018 Aug;45(8):615-618. doi: 10.1111/cup.13273. Epub 2018 Jun 12. PMID: 29740855.

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– Poster Presentations

• **Kaia Erickson, M.D.**

- **“Is it squamous cell carcinoma hiding in the disguise of a seborrheic keratosis? P53 to the rescue!”** Poster for ASDP annual meeting; October 17-20, 2019
- **“Succinate dehydrogenase-deficient renal cell carcinoma with sarcomatoid features”** Poster for ASCP annual meeting; September 11-13, 2019

– Ongoing Research Projects

- Determination of Basement Membrane Integrity in Cutaneous Squamous Cell Neoplasms
 - Michael Koch, MD and Eric Roach, MSIII

Service

- Department Committees and Assignments
 - Department Vice Chair

- Dr. Douglas Lynch
- Residency Director
 - Dr. DeziRae Muirhead
- Assistant Residency Director
 - Dr. Douglas Lynch
- Residency Program Education Committee
 - Dr. D. Muirhead, Dr. D. Lynch, Dr. K. Bohy, Dr. A. Kerkvliet, Dr. R. Askeland, and Dr.
- Residency Clinical Competency Committee
 - Dr. D. Muirhead, Dr. D. Lynch, Dr. K. Bohy, Dr. A. Kerkvliet and Dr. R. Askeland
- Sioux VAMC Residency Coordinator
 - Dr. David W. Ohrt
- Pillar III Pathology Elective Coordinators
 - Dr. Michael Geis, SF Sanford Campus
 - Dr. Bailey Reindl, SF Avera Campus
 - Dr. Victoria Herr, Rapid City Campus
 - Dr. Richard Strom, Yankton Campus

Service

- Sanford School of Medicine Committees
 - Arwyn Cunningham, D.O.
 - Graduate Medical Education

- Michael R. D. Koch, M.D.
 - Administrative Council, Chairs, Student Longitudinal Follow-up, Pillar I Course Directors, FAMER Board
- DesiRae Muirhead, M.D.
 - Graduate Medical Education, Residency Corporation Board
- Kaia Erickson, M.D.
 - GME QI Committee
- Henry Traverse, M.D.
 - Faculty Council Committee

Service

- International Positions/Committees
 - Henry Travers, M.D.
 - Secretary-Treasurer, World Pathology Foundation

– National Positions/Committees

- , M.D.
 - College of American Pathologists (CAP) Residents Committee, SD representative
- Karla Murphy, M.D.
 - COLA, Board of Directors 2013-present
 - CAP, House of Delegates, South Dakota Delegate 2018

– State Positions/Committees

- Henry Travers, M.D.
 - Historian, South Dakota State Medical Association
- Kenneth Snell, M.D.
 - Officer, South Dakota Lions Sight and Health Board

Promotions and Awards

– Awards

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