

Curriculum Vitae and Bibliography

Kristopher W. Cummings, MD

1. Personal Information

2. Present Academic Rank and Position

Senior Associate Consultant - Department of Radiology, Mayo Clinic, Scottsdale, Arizona	04/2015 - Present
Assistant Professor of Radiology - Mayo Clinic College of Medicine	07/2015 - Present

3. Education

University of Alabama, Tuscaloosa, Alabama - BS, Biology	1998
University of Alabama School of Medicine, Birmingham, Alabama - MD, Medicine	2002
Barnes-Jewish Hospital, St. Louis, Missouri - Internship, Preliminary Internal Medicine	2003
Mallinckrodt Institute of Radiology, Barnes-Jewish Hospital, St. Louis, Missouri - Residency, Diagnostic Radiology	2007
Mallinckrodt Institute of Radiology, Barnes-Jewish Hospital, St. Louis, Missouri - Fellow, Cardiothoracic Imaging	2008

4. Certifications

Board Certifications

American Board of Radiology

Radiology	06/2007 - Present
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5. Licensure

Missouri	(Medical)
Arizona	(Medical)

6. Honors/Awards

Summa cum laude - University of Alabama, Tuscaloosa, Alabama	1998
Phi Beta Kappa - University of Alabama	1998
Presidential Scholarship - University of Alabama	1998
Summa cum laude - University of Alabama School of Medicine, Birmingham, Alabama	2002
Alpha Omega Alpha - University of Alabama School of Medicine	2002
Hugh J. Dempsey Memorial Award for Academic Excellence - University of Alabama School of Medicine	2002
State Merit Scholarship for Academic Excellence - University of Alabama School of Medicine	2002
Chief Resident, Diagnostic Radiology - Barnes-Jewish Hospital, Mallinckrodt Institute of Radiology, St. Louis, Missouri	2006 - 2007
Certificate of Merit - Educational Exhibit, Radiological Society of North America	2007
Honorable Mention - Educational Exhibit, North American Society of Cardiac Imaging	10/2007

Program Participant - AUR-Philips Faculty Development Course, Association of 2008
University Radiologists

Certificate of Merit - Educational Exhibit, Radiological Society of North America 2008

Clinician Educator Development Program Participant - American Roentgen 2011
Ray Society

Best Doctor- Best Doctors Inc. 2013

Certificate of Merit - Educational Exhibit, Radiological Society of North America 2013

Best Doctor - Best Doctors Inc. 2014

7. Military Service

8. Previous Professional Positions and Major Appointments

Clinical Radiologist - Barnes-Jewish Hospital, St. Louis, Missouri 2008 - 03/2015

Clinical Radiologist - Barnes-Jewish West County Hospital, St. Louis, Missouri 2008 - 03/2015

Clinical Radiologist- Barnes-Jewish St. Peters Hospital, St. Louis, Missouri 2008 - 03/2015

Clinical Radiologist - St. Louis Children's Hospital, St. Louis, Missouri 2008 - 03/2015

Assistant Professor, Cardiothoracic Imaging - Mallinckrodt Institute of 07/2008 - 03/2015
Radiology, Washington University in St. Louis School of Medicine, St Louis,
Missouri

Research Consultant - Biomedical Systems, St. Louis, Missouri 2013 - 03/2015

Research Consultant - Medtronic, St. Louis, Missouri 2013 - 03/2015

9. Professional & Community Memberships, Societies and Services

Professional Memberships & Services

Radiological Society of North America

Member 2003 - Present

Cardiac Case of the Day

Coordinator 2009

Coordinator 2010

Educational Awards Committee

Member 2011 - 2014

Thoracic Section

Captain 2012 - 2014

American College of Radiology

Member 2007 - Present

Appropriateness Criteria Committee

Expert Panel on Cardiac Imaging

Member 2012 - Present

Coronary CTA Course

Faculty 2013 - Present

E-Learning Committee

Thoracic Section

Member 2013 - 2014

American Board of Radiology

Member 2007 - Present

Thoracic Core Exam Committee

Member	2012 - Present
American Roentgen Ray Society (ARRS)	
Member	2008 - Present
Scientific/Educational Awards Committee	
Member	2012 - Present
Approach to Diagnosis Course Faculty	
Lecturer	2012 - Present
Cardiac Team	
Captain	2013 - Present
Society of Thoracic Radiology	
Member	2008 - Present
Scientific Sessions Committee	
Member	2012 - Present
STR Representative to ACR Committee for Guidelines on Cardiac Scintigraphy Committee	
Representative	2013
Association of University Radiologists	
Member	2010 - 2014
Stauffer Awards Selection Committee	
Member	2010 - 2014
Journal Other Responsibilities	
Journal of Magnetic Resonance Imaging	
Manuscript Reviewer	2007 - 2010

10. Educational Activities

A. Curriculum/Course Development

Coordinator, Resident Teaching Elective Radiology-Anatomy Correlation in Gross Anatomy Course for First Year medical Students Washington University School of Medicine St. Louis, Missouri	2010 - 2012
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B. Teaching

Lecturer, Introduction to Abdominal Imaging Second Year Medical Student Course Washington University School of Medicine St. Louis, Missouri	2010 - 2014
Lecturer, Introduction to Clinical Practice of Medicine Second Year Medical Student Course Washington University School of Medicine St. Louis, Missouri	2010 - 2014
Lecturer, CT Imaging of Pulmonary Infection Department of Infectious Disease, Core Curriculum Series Washington University School of Medicine St. Louis, Missouri	2012 - 2014

Cardiac CT and MR Case Review Images to Outcomes XII: Cardiovascular Imaging-Nuclear Cardiology and Beyond CME Course Washington University	08/2012
Radiologic Findings in Interstitial Lung Disease. Idiopathic Pulmonary Fibrosis CME Course Washington University	07/2014

C. Mentorship

Individual and Position Description	Timeframe & Description	Outcomes	Current Status
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D. Academic Career Development

11. Institutional/Departmental Administrative Responsibilities, Committee Memberships and Other Activities

Mayo Clinic in Arizona

Department of Radiology Education Committee Member	2015 - Present
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Activities at Other Institutions

Washington University in St. Louis School of Medicine Mallinckrodt Institute of Radiology Radiology Residency Program Mentor	2008 - 2015
Assistant Director Selection Committee Member	2010 - 2015
Education Committee Member	2006 - 2015
Curriculum Committee Member	2007 - 2015

12. Presentations Extramural

National/International

Invited

Coronary CTA Review Course Faculty American College of Radiology (ACR)	03/2013
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Oral

MDCT and MR Evaluation of Congenital Thoracic Disease in the Adult (Non-Cardiac) Refresher Course Radiological Society of North America	2008
MDCT and MR Evaluation of Congenital Thoracic Disease in the Adult (Non-Cardiac) Refresher Course Radiological Society of North America	2009

MDCT and MR Evaluation of Congenital Thoracic Disease in the Adult (Non-Cardiac) Refresher Course Radiological Society of North America	2010
Diseases of the Aortic Root and Ascending Aorta Society of Thoracic Radiology Annual Meeting	2011
Cardiac Imaging Approach to Diagnosis Course American Roentgen Ray Society Annual Meeting	2012
Introduction to Cardiac MR: Cardiomyopathies. Refresher Course Radiologic Society of North America	2012
Congenital Lung Disease in the Adult Society of Thoracic Radiology Annual Meeting	2012
Cardiac Imaging Approach to Diagnosis Course American Roentgen Ray Society Annual Meeting	2013
Vydareny Imaging Interpretation Competition Faculty Coordinator AUR Annual Meeting	2013
Introduction to Cardiac MR: Cardiomyopathies. Refresher Course Radiologic Society of North America	2013
Cardiac Imaging Approach to Diagnosis Course American Roentgen Ray Society Annual Meeting	2014
Idiopathic (and not so Idiopathic) Interstitial Lung Disease Grand Rounds Case Western Reserve University School of Medicine Cleveland, Ohio	02/2014
CT and MR Imaging of Pericardial Diseases Society of Thoracic Radiology Annual Meeting	03/2014
Aortic Root Disease Imagenes 2014 Buenos Aires, Argentina	08/2014
MR of Non-ischemic Cardiomyopathies Imagenes 2014 Buenos Aires, Argentina	08/2014
CT and MR of Pericardial Diseases Imagenes 2014 Buenos Aires, Argentina	08/2014
Non-ischemic Cardiomyopathy: Infiltrative Diseases Society of Thoracic Radiology Annual Meeting	03/2015
HRCT Basics: Imaging Patterns Instructional Course American Roentgen Ray Society Annual Meeting	04/2015

Cardiac Imaging: Anomalous Coronary Arteries and Delayed Contrast Enhanced Cardiac MR 04/2015

Approach to Diagnosis Course
American Roentgen Ray Society Annual Meeting

Poster

The ABCs of VSDs: Understanding Ventricular Septal Defects 2007
Cummings KW, Bhalla S, Javidan CJ, Woodard PK, Gutierrez FR Educational Exhibit
North American Society of Cardiac Imaging

Patterns of Delayed Left Ventricular Myocardial Contrast Enhancement in the Differentiation of Non-Ischemic Cardiomyopathies in Cardiac MR 2007
Cummings KW, Javidan CJ, Bierhals AJ, Bhalla S, Gutierrez FR, Woodard PK Educational Exhibit
Radiological Society of North America Annual Meeting

What's That? Reviewing the Spectrum of Congenital Lung Disease in the Adult Detected on MDCT 2007
Cummings KW, Bierhals AJ, Bhalla S, Menias CO, Huete A, Gutierrez FR Educational Exhibit
Radiological Society of North America Annual Meeting

Left Ventricular Outflow Obstruction: More Than Just Aortic Stenosis 2008
Parker RA, Raptis CA, Cummings KW, Saeed IM, Gutierrez FR, Bhalla S Educational Exhibit
Radiological Society of North America Annual Meeting

The "Outer" Space: Pericardial Anatomy and Disease Processes 2008
Cummings KW, Bhalla S, Javidan CJ, Gutierrez FR Educational Exhibit
Radiological Society of North America Annual Meeting

Contraindications and Side Effects of Commonly Used Medications in Coronary CT Angiography 2008
Saeed I, Cummings KW, Bhalla S, Gutierrez FR, Barzilai B, Woodard PK Educational Exhibit
Radiological Society of North America Annual Meeting

To the Root of the Matter: Aortic Root and Proximal Ascending Aortic Anatomy and Diseases 2009
Cummings KW, Javidan CJ, Bhalla S, Braverman A, Gutierrez FR Educational Exhibit
Radiological Society of North America Annual Meeting

How can you Mend a Broken Heart? Named Cardiac Surgical Procedures that all Radiologists Should Know 2009
Henry T, Gutierrez FR, Cummings KW, Bhalla S, Raptis CA, Ho A. Educational Exhibit
Radiological Society of North America Annual Meeting

Complications of the Fontan Circulation: A Review Based on 40 Cases with a Failing Fontan Circuit 2010
Khanna G, Cummings KW, Singh G, Bhalla S Educational Exhibit
Radiological Society of North America Annual Meeting

Osler-Weber Rendezvous, Getting Familiar with the Thoracic Manifestations of Hereditary Hemorrhagic Telangiectasia Slat D, Raptis CA, Javidan-Nejad C, Cummings KW, Chakinala M, Picus D Educational Exhibit Radiological Society of North America Annual Meeting	2011
Pregnancy and the Thorax: Imaging of Cardiovascular and Pulmonary Complications Javidan-Nejad C, Vargas D, Cummings KW, Cahill A, Bhalla S Educational Exhibit Radiological Society of North America Annual Meeting	2012
Congenital and Acquired Pulmonary Venous Lesions Javidan-Nejad C, Cummings KW, Ocampo M, Bhalla S, Gutierrez FR Educational Exhibit Radiological Society of North America Annual Meeting	2012
Artificial Intelligence: Understanding the Radiology of Artificial Circulations Talbert RJ, Cummings KW, Bierhals AJ, Javidan-Nejad C, Mellnick VM, Prasad S, Bhalla S Educational Exhibit Radiological Society of North America Annual Meeting	2013
Go with the Flow! Cardiovascular MR Flow Quantification for Dummies Vargas D, Cummings KW, Ocazonez D, Restrepo CS Educational Exhibit Radiological Society of North America Annual Meeting	2013

Regional**13. Visiting Professorships**

Teaching Professor Department of Radiology University of Minnesota	03/2011
Visiting Professor Department of Radiology Eastern Virginia School of Medicine	03/2012
Teaching Professor Department of Radiology University of Minnesota	03/2012
Visiting Professor Department of Radiology Eastern Virginia School of Medicine	03/2013
Teaching Professor Department of Radiology University of Minnesota	03/2013
Visiting Professor Department of Radiology Case Western Reserve University	02/2014
Visiting Professor Department of Radiology Eastern Virginia School of Medicine	02/2015

14. Clinical Practice, Interests, and Accomplishments

Current:

I am actively involved in a dynamic clinical practice where I interpret thoracic CT, thoracic MR, cardiac CT, Cardiac MR, chest radiology, 3D thoracic imaging with both CT and MR. I have special interests in adult congenital heart disease, cardiomyopathy, interstitial lung disease and pulmonary vascular diseases

Mallinckrodt Institute of Radiology 2007-2015:

I regularly attended on clinical services including body computed tomography, emergency radiology, adult and pediatric cardiac CT and MR imaging, chest radiology, 3D thoracic imaging and thoracic magnetic resonance imaging. From 2007-2013, I participated in after-hours teleradiology coverage for Barnes-Jewish St Peters and Barnes-Jewish West county hospitals through a pool organized by our radiology department, which provides predominately body and neurological CT, ultrasound and occasionally MR interpretations for inpatient and emergency room patients.

15. Research Interests

Radiology study reader, Imaging Response Assessment Team, (CORE Lab) Barnes-Jewish Hospital/Washington University, 2010-2015. I participated in dedicated oncologic body CT interpretation for clinical trial and non-trial patients as part of a National Cancer Institute multi-center initiative.

16. Educational Practice, Interests, and Accomplishments

Current:

I am actively involved with resident education, participating on the educational committee and serving as faculty interviewer for residency applicants.

Mallinckrodt Institute of Radiology 2007-2015:

I regularly worked with residents on clinical services and was responsible for didactic and case based morning teaching conferences, noon lectures, and several multidisciplinary conferences including conferences with pulmonology and thoracic surgery. As mentioned above, I also worked with residency mentoring and with residency program selections. In addition, I worked with residents and other faculty on clinically oriented education projects and publications. As assistant program director, I participated in and assisted with decisions affecting all areas of the residency program, including the educational curriculum, rotation and call schedules, and the accreditation process.

17. Research Grants Awarded

Active Grants

Mayo Clinic

Collaborator	Sub-Study Protocol Title: Right Ventricular Response to Rituximab in Systemic Sclerosis-Associated Pulmonary Arterial Hypertension - A Magnetic Resonance Imaging Sub-Study. Short Title: RESTORE Sub-Study. Funded by NIH/NIAID Stanford University Sub-Contract. (ASC01)	07/01/2013 - 06/01/2015
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18. Patents

Title	Patent Number	Date filed	Date issued
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19. Bibliography

Peer-reviewed Articles

1. Pillot GA, Read WL, Hennenfent KL, Marsh S, Gao F, Viswanathan A, **Cummings K**, McLeod HL, Govindan R. A phase II study of irinotecan and carboplatin in advanced non-small cell lung cancer with pharmacogenomic analysis: final report. *J Thorac Oncol*. 2006 Nov; 1(9):972-8. PMID:17409981.
2. **Cummings KW**, Bhalla S, Javidan-Nejad C, Bierhals AJ, Gutierrez FR, Woodard PK. A pattern-based approach to assessment of delayed enhancement in nonischemic cardiomyopathy at MR imaging. *Radiographics*. 2009 Jan-Feb; 29(1):89-103. PMID:19168838. DOI:10.1148/rg.291085052.
3. Gipson MG, **Cummings KW**, Hurth KM. Bronchial atresia. *Radiographics*. 2009 Sep-Oct; 29(5):1531-5. PMID:19755610. DOI:10.1148/rg.295085239.
4. **Cummings KW**, Bhalla S. Multidetector computed tomographic pulmonary angiography: beyond acute pulmonary embolism. *Radiol Clin North Am*. 2010 Jan; 48(1):51-65. PMID:19995629. DOI:10.1016/j.rcl.2009.09.001.
5. Khan M, **Cummings KW**, Gutierrez FR, Bhalla S, Woodard PK, Saeed IM. Contraindications and side effects of commonly used medications in coronary CT angiography. *Int J Cardiovasc Imaging*. 2011 Mar; 27(3):441-9. Epub 2010 Jun 23. PMID:20571874. DOI:10.1007/s10554-010-9654-8.
6. Henry TS, Mettenburg JM, **Cummings KW**, Bhalla S. Posttraumatic anomalous pulmonary edema. *J Thorac Imaging*. 2012 Nov; 27(6):W188-9. PMID:22314584. DOI:10.1097/RTI.0b013e31823e37f0.
7. Bhandiwad AR, **Cummings KW**, Crowley M, Woodard PK. Cardiovascular magnetic resonance with an MR compatible pacemaker. *J Cardiovasc Magn Reson*. 2013; 15:18. Epub 2013 Feb 15. PMID:23409835. PMCID:3579751. DOI:10.1186/1532-429X-15-18.
8. Henry TS, **Cummings KW**. Role of imaging in the diagnosis and management of parasitic infections. *Curr Opin Pulm Med*. 2013 May; 19(3):310-7. PMID:23422414. DOI:10.1097/MCP.0b013e32835f1b85.
9. Su F, **Cummings KW**, Krigman H, Ranganathan P. Meigs' syndrome: a rare cause of recurrent pleural effusion in scleroderma. *Rheumatol Int*. 2013 Oct; 33(10):2647-51. Epub 2012 Apr 27. PMID:22538500. DOI:10.1007/s00296-012-2437-x.
10. Dill KE, George E, Abbara S, **Cummings K**, Francois CJ, Gerhard-Herman MD, Gornik HL, Hanley M, Kalva SP, Kirsch J, Kramer CM, Majdalany BS, Moriarty JM, Oliva IB, Schenker MP, Strax R, Rybicki FJ. ACR appropriateness criteria imaging for transcatheter aortic valve replacement. *J Am Coll Radiol*. 2013 Dec; 10(12):957-65. Epub 2013 Nov 01. PMID:24183748. DOI:10.1016/j.jacr.2013.09.002.
11. Earls JP, Woodard PK, Abbara S, Akers SR, Araoz PA, **Cummings K**, Cury RC, Dorbala S, Hoffmann U, Hsu JY, Jacobs JE, Min JK. ACR appropriateness criteria asymptomatic patient at risk for coronary artery disease. *J Am Coll Radiol*. 2014 Jan; 11(1):12-9. Epub 2013 Dec 6. PMID:24316232. DOI:10.1016/j.jacr.2013.09.021.
12. Hammer MM, Flagg E, Mellnick VM, **Cummings KW**, Bhalla S, Raptis CA. Computed tomography of blunt and penetrating diaphragmatic injury: sensitivity and inter-observer agreement of CT Signs. *Emerg Radiol*. 2014 Apr; 21(2):143-9. Epub 2013 Oct 19. PMID:24142265. DOI:10.1007/s10140-013-1166-0.

13. **Cummings KW**, Javidan-Nejad C, Bhalla S. Multidetector computed tomography of nonosseous thoracic trauma. *Semin Roentgenol.* 2014 Apr; 49(2):134-42. Epub 2014 Jan 28. PMID:24836489. DOI:10.1053/j.ro.2014.01.002.
14. **Cummings KW**, Luna A, Atalay MK. MR Imaging of pericardial diseases. *Appl Radiol.* 2015 Jun; 44(6):8-16.
15. **Cummings KW**, Bhalla S. Pulmonary Vascular Diseases. *Clin Chest Med.* 2015 Jun; 36(2):235-48. Epub 2015 Mar 26. PMID:26024602. DOI:10.1016/j.ccm.2015.02.007.

Books

1. Bhalla S, Javidan-Nejad C, **Cummings KW**, Bierhals AJ. *Cases in Radiology: Chest Imaging Cases* New York: Oxford; 2012. (Book)

Book Chapters

1. **Cummings KW**, Czyeda-Pommersheim F, Bhalla S. Imaging for congenital cardiovascular disease. In: Abarra S, Kavla SP. *Abbara: Problem Solving in Radiology: Cardiovascular Imaging* Elsevier; 2012. (Book chapter)
2. Henry T, **Cummings KW**. Myocardial non-ischemic cardiomyopathies. In: Abarra S, Kavla SP. *Abbara: Problem Solving in Radiology: Cardiovascular Imaging* Elsevier; 2012. (Book chapter)
3. **Cummings KW**, Bhalla S. Chemotherapy-related lung injury. In: Ravenel JG. *Lung Cancer Imaging* Humana Press; 2013. (Book chapter)
4. Sheybani E, **Cummings KW**. Radiology. In: DeFer TM. *The Washington Manual: Internship Survival Guide* Lippincott, Williams & Wilkins; 2013. (Book chapter)

Abstracts

1. Mellnick V, **Cummings KW**, et al. Cardiac case of the day: Fibroma. *Radiological Society of North America, Annual Meeting.* 2009.
2. Azok J, **Cummings KW**, Raptis CA, Bhalla S, Woodard PK. Cardiac case of the day: Hypereosinophilic Cardiomyopathy. *Radiological Society of North America, Annual Meeting.* 2010.
3. Purdy H, **Cummings KW**, Bhalla S. Thoracic case of the day: Pulmonary talc embolism. *Radiological Society of North America Annual Meeting.* 2014.
4. McWilliams SR, Bhalla S, **Cummings K**, Javidan-Nejad C, Picus D, Chakinala M. Updated prevalence of pulmonary arteriovenous malformations in HHT patients based on multi-detector CT with dedicated screening protocol. *HHT International Scientific Conference 2015, Captiva Island, FL.* 2015 Jun.
5. McWilliams SR, Bhalla S, **Cummings K**, Javidan-Nejad C, Picus D, Chakinala M. A description of non-classic pulmonary arteriovenous malformations in patients with HHT. *HHT International Scientific Conference 2015, Captiva Island, FL.* 2015 Jun.

Miscellaneous

1. Bhalla S, **Cummings KW**. Pitfalls in aortic injuries. *Categorical Course Syllabus.* American Roentgen Ray Society, Vancouver, BC. 2012.

2. **Cummings KW**. Cardiac Cases. In: 2012 Approach to Diagnosis: A Case-based Imaging Review. American Roentgen Ray Society. 2012.
3. **Cummings KW**. Cardiac Cases In: 2013 Approach to Diagnosis: A Case-based Imaging Review. American Roentgen Ray Society. 2013.
4. Bhalla S, **Cummings KW**. Vascular diseases of the thorax: misses and mimics. Categorical Course Syllabus. American Roentgen Ray Society, San Diego, CA. 2014.
5. **Cummings KW**. Cardiac Cases. In: 2014 Approach to Diagnosis: A Case-based Imaging Review. American Roentgen Ray Society. 2014.
6. **Cummings KW**. Cardiac Cases. In: 2015 Approach to Diagnosis: A Case-based Imaging Review. American Roentgen Ray Society. 2015.

Forthcoming

1. **Cummings KW**. Abnormal aorta and aortic branching. In: Rotations in Radiology: Chest Imaging. Christensen MR, Bhalla S, Abbott G, Martinez-Jiminez S. Oxford University Press (Publication Pending). 2015.
2. **Cummings KW**. Shunts including intracardiac and intrapulmonary. In: Rotations in Radiology: Chest Imaging. Christensen MR, Bhalla S, Abbott G, Martinez-Jiminez S. Oxford University Press (Publication Pending). 2015.
3. **Cummings KW**. Abnormalities of pulmonary venous return. In: Rotations in Radiology: Chest Imaging. Christensen MR, Bhalla S, Abbott G, Martinez-Jiminez S. Oxford University Press (Publication Pending). 2015.
4. Jokerst C, **Cummings KW**, Bierhals AJ, Parkar N. Chest wall. In: Rotations in Radiology: Chest Imaging. Christensen MR, Bhalla S, Abbott G, Martinez-Jiminez S. Oxford University Press (Publication Pending). 2015.
5. **Cummings KW**. Sequestration. In: Rotations in Radiology: Chest Imaging. Christensen MR, Bhalla S, Abbott G, Martinez-Jiminez S. Oxford University Press (Publication Pending). 2015.