CURRICULUM VITA

Rev.12/2/17

Sunil Kumar Aggarwal, M.D., Ph.D.

HOME 1617 S King Street Seattle, WA 98144 ph: 206-375-3785 sunila@uw.edu

Website: www.cannabinologist.org

Place of birth: Muskogee, OK, U.S.A.

Date of birth: 10/7/1979

EDUCATION

University of Washington School of Medicine, Seattle, Washington Medical Scientist Training Program Global Health Pathway 7/2002 - 6/2010 M.D., 6/2010

Graduate - University of Washington, College of Arts and Sciences, Seattle, Washington Admitted to Post-Master's Status

Geography (Medical Geography)

Advisor: Jonathan Mayer, PhD

Dissertation: "The medical geography of cannabinoid botanicals in Washington state: access, delivery, and distress" 8/2004 - 8/2008

Ph.D., 12/2008

Undergraduate - University of California, Berkeley, College of Chemistry, Berkeley, CA Chemistry (with High Honors)

8/1997 - 12/2001

B.S., 12/2001

Undergraduate - University of California, Berkeley, College of Letters and Sciences, Berkeley, CA Philosophy (with Distinction in General Scholarship), Minor field: Religious Studies

8/1997 - 12/2001

B.A., 12/2001

Undergraduate Study Abroad - University of Edinburgh, College of Humanities and Social Science, Edinburgh, Scotland, UK Philosophy, Political Theory 9/2000 - 12/2000

Other - Baylor University, Waco, TX Beginning Science For Summer Program Students 6/1996 - 8/1996

POSTDOCTORAL TRAINING

7/2014 - 6/2015 M.D. Fellowship, ACGME Accredited National Institutes of Health Clinical Center, Bethesda, Maryland Hospice and Palliative Medicine Ann Berger, MSN, MD

7/2011 - 6/2014

M.D. Residency, ACGME Accredited

NYU School Of Medicine, New York, New York Physical Medicine and Rehabilitation Alex Moroz, MD

6/2010 - 6/2011 M.D. Residency, ACGME Accredited Virginia Mason Medical Center, Seattle, Washington Internal Medicine-Preliminary Alvin Calderon, MD, PhD

FACULTY POSITIONS HELD

11/16/2016-present

Clinical Instructor, University of Washington School of Medicine, Department of Rehabilitation Medicine

9/16/2016-present

Affiliate Assistant Professor, University of Washington, Department of Geography

10/2015-present

Clinical Faculty, The Wright Center for Graduate Medical Education-National Family Medicine Residency Auburn, WA

12/1/15-ongoing

Affiliated Faculty, MultiCare Institute for Research and Innovation Tacoma, WA

2015-present

Associate Member, Humboldt Institute for Interdisciplinary Marijuana Research, Humboldt State University Arcata, CA

HOSPITAL POSITIONS HELD

9/2015-10/2017

Palliative Medicine Physician, MultiCare Adult Palliative Medicine Services

Credentialed at MultiCare Auburn Medical Center (Auburn, WA), Good Samaritan Hospital (Puyallap, WA), Tacoma General Hospital (Tacoma, WA), and Allenmore Hospital (Tacoma, WA)

9/2015-present

MultiCare Hospice Associate Medical Director and On-Call Physician Hospice General Inpatient Care hospital privileges system-wide

NON-HOSPITAL BASED CLINICAL ACTIVITIES

12/2016-present

Sunil Kumar Aggarwal, M.D., Ph.D. PLLC independently contracting with Sage Medical Group Clinic in Bellevue, WA Integrative Pain, Palliative, and Rehabilitation Medicine Practice.

HONORS

Annual Featured Alumni of Global Health Pathway for Medical Students Selected by Program Staff and Faculty in University of Washington Global Health Department 2016 Annual Report, Released at 10th Anniversary Celebration attended by benefactor Melinda Gates and Washington State Governor, 2/8/2017

'Physician of the Quarter' - MultiCare Auburn Geropsychiatric Unit-Based Council, Quarter 3, 11/2016

'Resident of the Year' Finalist, NYU Department of Physical Medicine and Rehabilitation, 2014

American Academy of Hospice and Palliative Medicine Poster Award, 2013

Inpatient Rehabilitation FIM (functional independence measure) Certification (UDSMR), 12/21/12

Hospital for Joint Diseases Local Chief, NYU Physical Medicine and Rehabilitation Residency, 12/2012

John G. Gianutsos Awardee, NYU Rusk, 10/26/11

UW School of Medicine Global Health Pathway Certificate, 6/2010

Profiled in November 22, 2009 Chronicle for Higher Education

NIGMS Medical Scientist Training Program Fellow, 2002-2010

NSF Graduate Research Fellow, 2005-2008

Mental Diversity Scholar, Center for Cognitive Liberty & Ethics, 2006

Betty Ford Center Summer Institute for Medical Students Inpatient Program Certificate, 2005

Dean's Honor List, UC Berkeley College of Letters & Science, 2001

Dean's Honors List, UC Berkeley College of Chemistry, 1999-2001

Goldwater Scholar, 1998

Howard Memorial Scholarship, UC Berkeley College of Chemistry, 1998

UC Berkeley Kraft Scholarship, 1998,

US National Chemistry Olympiad Team Member, 1997

National Merit Scholar, 1997

BOARD CERTIFICATION

Board Certified, American Board of Physical Medicine and Rehabilitation. 07/1/2015-12/31/2025

Board Certified, Subspecialty Certification Board in Hospice and Palliative Medicine. 12/1/2016-12/31/2026

CURRENT LICENSES TO PRACTICE

Washington, 4/24/15-10/7/2017

Washington, DC, 11/21/2013-12/31/2016 (lapsed)

PROFESSIONAL ORGANIZATIONS

Fellow, American Academy of Physical Medicine and Rehabilitation Member, American Academy of Hospice and Palliative Medicine Lifetime Member, International Association of Hospice and Palliative Care Member, Washington State Medical Association

Associate Member, New York Academy of Medicine

TEACHING RESPONSIBILITIES

Clinical Preceptor, Palliative Care 1-month Rotation, 4 PGY-3 Residents/year (National Family Medicine Residency) Clinical Preceptor, Palliative Care 1-month Rotation, ~7 MS-4 Students/year (UW School of Medicine) Clinical Preceptor, Palliative Care 1-week Rotation, ~3 Fellows/year, MHS PA Hospitalist Fellowship Program Invited Didactics Lecturer, multiple accredited educational programs

Recent

Guest Faculty, University of Washington Psychiatry Residency, 'Cannabinoid Integrative Medicine in Psychiatric Care: A Review of Recent Literature', Didactics session, Seattle, WA, 1/5/17.

Guest Faculty, Tacoma Family Medicine Residency, 'Cannabinoid Integrative Medicine in Primary Care' and 'Practical Aspects of Cannabinoid Plant Integrative Medicine in Chronic Pain Care' during two 40-min blocks during Chemical Dependency curriculum. Invited by Dr. John VanBuskirk, D.O., program director, 12/3/15 and 5/19/16. Also gave this presentation to the East Pierce Family Medicine Residence in Puyallap, WA, invited by Michael Mosely, MD on 9/28/17.

Guest Faculty Speaker, Indian Association of Palliative Care's Certificate Course in Essentials of Palliative Care, All-India Institute of Medical Sciences-Bhubaneswar, 8/7/15

Past

2014-2015

Secondary Mentor to Arielle Gerard, MD/MS in Bioethics Candidate (co'17), Albany Medical College, for her Distinction in Advocacy Project in support of the federal reclassification of cannabis.

12/2012-04/2013

Thesis Advisor

Invited External Advisor for Columbia University School of Journalism MA student Sonia Talati's Master's thesis on Colorado's Amendment 64, with Dean William Grueskin.

NYC-area Hospitals and Colleges, New York, 2012-2014

Guest Lecturer

- 1. New York Medical College Hospice and Palliative Medicine Fellowship Program, New York, NY: Invited by Dr. Lauren Shaiova to give one-hour lecture to Hospice and Palliative Medicine Fellows on "Medical Marijuana" during academic didactics session, New York Metropolitan Hospital Department of Pain Management and Palliative Care, 7/27/12.
- 2. Hackensack Medical Center, Hackensack, NJ Invited to give hospital-wide Grand Rounds at Hackensack University Medical Center, Hackensack, NJ: "Medical Cannabis in New Jersey", hosted by Dr. Jose Contreras, director, Pain and Palliative Medicine Institute, 9/27/12.
- 3. Haverford College, Haverford, PA Invited by Professor Tapoja Chaudhuri to give a guest lecture in ANTH 322: Ethnographic Methods, 9/28/12.
- 4. Sarah Lawrence College, Bronxville, NY (held in New York, NY): Invited by Professor Dominic Corva to give guest lecture "Medical Marijuana and the Political Ecology of Cannabis Pharmaceuticalization" for Intermediate Level Sarah Lawrence College Public Policy Seminar, Cannabis and US Policy, 4/15/13.
- 5. Invited Guest Lecture at Albert Einstein College of Medicine Social Medicine Course. Topic: "Compassionate Care: Medical Cannabis in NY".
- 6. New York University Langone Medical Center, Physical Medicine and Rehabilitation Grand Rounds Presentation "Medicinal Cannabis in Rehabilitation Medicine and Chronic Pain Management: Outcomes Data in 176 Patients", 2/26/14.
- 7. New York University School of Social Work, Invited Guest Lecture in Professor Helen Redmond's Advanced Seminar on Drug Policy, 3/11/14.
- 8. Columbia University Medical Center, Hospice and Palliative Medicine Grand Rounds Presentation "Cannabis for Symptom Control", 3/20/14.

2014-ongoing

Secondary Mentor to Arielle Gerard, MD/MS in Bioethics Candidate (co'17), Albany Medical College, for her Distinction in Advocacy Project in support of the federal reclassification of cannabis.

12/2012-04/2013

Thesis Advisor

Invited External Advisor for Columbia University School of Journalism MA student Sonia Talati's Master's thesis on Colorado's Amendment 64, with Dean William Grueskin.

03/2009 - 09/2010

UW Department of Anesthesiology & Pain Medicine & Department of Rehabilitation Medicine, Seattle, Washington Guest Lecturer

Invited to give the following educational sessions: 1. Didactic Presentation to UW Pain Medicine Fellows: "Medical Cannabis: Questions and Answers", 9/14/10. 2. Speaker at UW Dept. of Rehabilitation Medicine Research Seminar: "Cannabinoid Botanicals for the Management of Chronic Pain and Illness: Access, Delivery, and Distress in Two Convenience Samples of Qualifying Patients in Washington State." 3/23/09. 3. UW Seminars in Pain Medicine: "Cannabis-Based Management of Neuropathic Pain: Evidence, Rationale, and Clinical Reality in Cannabinoid Medicine." 3/23/10.

03/2006 - 01/2010

UW Departments of Public Health and Global Health, Seattle, Washington Guest Instructor

Invited to give the following educational presentations: 1.Presenter at UW Global Health Journal Club (faculty moderator: Dr. Paula Brentlinger) on "Health and Human Rights in the US-led Global War on Drugs.", 1/13/10. 2.Speaker at UW Student Public Health Association Brown Bag Seminar. Topic: Ph.D. dissertation research, 11/19/08. 3.Co-presenter at UW Global Health Departmental Seminar: "War as the continuation of healthcare by other means: the U.S. war on drugs and the perversion of public health", with Dominic Corva, Ph.C., 3/7/08. 4. Presentation in course Health Services 590K/Law H540: Health and Human Rights on: "Persecution of the III and Disabled who use Cannabis as Medicine – Health and Human Rights Cases in the American-led 'War on Marijuana'". 3/7/06.

12/2005 - 08/2008

UW Departments of Geography & Law, Societies, & Justice, Washington Guest Instructor

1."Medical Geographic Perspectives of the US War on Drugs and Public Health", Geography (GEOG) 280: Introduction to the Geography of Health and Health Care. Co-presented with Dominic Corva, Ph.D., 8/14/08. 2."Industrial Hemp" & "Marijuana and Medical Geography", Law, Societies, and Justice (LSJ) 380: "Reefer Madness": Cannabis and Criminalization in the U.S., 1/31/08 and 2/19/08. 3."Drug War Structural Violence", LSJ 375: Crime, Politics, and Justice, 6/28/07. 4."Medical Marijuana and Structural Violence", LSJ 375: Crime, Politics, and Justice, 10/23/07. 5."War, Health and Human Rights", GEOG 195: Violence, Resistance & Lessons of Paul Farmer, 11/13/06. 6."Substance Abuse: A medical/legal problem", LSJ 375: Introduction to Criminal Justice, 6/26/06. 7."Resistance to the War on Drugs", LSJ 380: Contemporary Issues in Law, Societies, and Justice: The War on Drugs and Globalization, 5/31/06. 8."Social Theory and Narrative in Medical Geography", GEOG 580: Medical Geography Graduate Seminar, 12/7/05.

8/2001 - 12/2001

UC Berkeley College of Chemistry, Scholars Program, California

Teaching Assistant, Michelle Douskey, PhD

Teaching assistant for general chemistry intensive section, UC Berkeley, 1 semester, 2001. Gave lectures and held regular office hours.

Recent CME

Invited Keynote Speaker: "Integrating Medical Cannabinology into the Science and Art of Nursing" Pierce County Nurses Association Spring Education Event, Tacoma, WA, 3/18/17 (Certificate of Attendance to be provided to nurses for license renewals)

Invited Speaker: Cannabinologic Approaches in Oncology and Palliative Oncology, Alaska Denali Oncology Group Meeting, Utqiagʻvik, AK, 6/23-24/2017

Aggarwal S. (2016, April 22). "The Use of Medical Marijuana in Oncology." Invited Panelist at Washington State Medical Oncology Spring 2016 Oncology Conference. Sea-Tac, WA

Aggarwal S. (2016, March 11). "Cannabis and Cannabinoid Science in the 21st Century: Health, Medicine, and the Controversies." Invited Keynote Panelist at 2016 American Psychosomatic Society 74th Annual Scientific Meeting. Denver, CO.

Aggarwal S. (2015, October 16). "Cannabinoid Integrative Medicine in Oncology & Palliative Care: Benefits and Burdens". Invited Oral Presentation to MultiCare Oncology Group, Medical Oncology Clinic, Katterhagen Resource Center, Tacoma General Hospital, Tacoma, WA.

Aggarwal S. (2015, August 7). "Cannabinoid Integrative Medicine In Chronic Pain and Cancer Pain". Invited Oral Presentation at Chronic Pain Seminar held by Department of Anaesthesiology, All-India Institute of Medical Sciences-Bhubaneswar, Bhubaneswar, India.

Aggarwal S. (2015, June 17). "Deconditioning in Cancer Palliative Care Patients: Brief Review and Practical Tips from PM&R". NIH Pain and Palliative Care Conference, CME accredited.

Aggarwal S. (2014, December 3). "Integrating Spirituality into Palliative Care: Reviewing the Literature for Expert Guidance and Outcomes Evidence". NIH Pain and Palliative Care Conference. CME accredited.

Aggarwal S. (2014, May 19). "Cannabis is Here to Stay: Regulatory Update." Invited Oral Presentation presented at: 2014 National Association of Boards of Pharmacy Annual Meeting; Phoenix, AZ. CPhE accredited.

Aggarwal S. (2014, May 10). "Cannabis Therapeutics in Hospice and Palliative Medicine." Oral Presentation presented at 8th National Clinical Conference on Cannabis Therapeutics; Portland, OR. CME accredited.

Aggarwal S. (2014, April 5). Afternoon Hot Topics Session: Medical Marijuana, Legal and Medical Perspectives. Invited Panelist at New York State Pain Society Annual Meeting and Scientific Sessions. West Harrison, NY. CME accredited.

Aggarwal S. (2014, March 20). "Cannabis for Symptom Control"; Hospice and Palliative Medicine Grand Rounds at Columbia University Medical Center: New York, NY. CME accredited.

Aggarwal S. (2014, February 26). "Medicinal Cannabis in Rehabilitation Medicine and Chronic Pain Management: Outcomes Data in 176 Patients". Physical Medicine and Rehabilitation Grand Rounds at New York University Langone Medical Center. New York, NY.

Aggarwal S. (2013, October 3). Invited Panelist for "Cannabis in the Treatment of Pain". Oral Presentation presented at: 2013 American Academy of Physical Medicine and Rehabilitation Annual Assembly; Washington, DC. CME Accredited.

EDITORIAL RESPONSIBILITIES

5/4/2015 - ongoing

Editorial Advisory Board Member, National Cancer Institute's PDQ (Physician Data Query) Cancer Complementary and Alternative Medicine. Participated by invitation in 'Cannabis and Cannabinoids' Cancer Information Summary Review.

01/2006 - ongoing

Various Journals and Publications

Peer Reviewer

Served as an ad hoc reviewer for the following refereed journals: Journal of Pain and Symptom Management, Psychopharmacology, Harm Reduction Journal, Geographical Review, International Journal of Drug Policy, Journal of Psychoactive Drugs, Clinical Journal of Pain, and Pain Practitioner. Additionally, provided research work and/or editorial assistance in the following publications, and was given in-print acknowledgement: 1.Garner C. Techniques and Experiments for Advanced Organic Laboratory; Wiley & Sons: New York, 1997. 2. Bickel PJ, Kechris KJ, et al. Finding important sites in protein sequences. Proc Natl Acad Sci U S A. 2002 Nov 12;99(23):14764-71. 3. Doyle R. Darwin's Pharmacy: Sex, Plants, and the Evolution of the Noösphere. Univ of WA Press: Seattle, 2011. 4. Fitchner C. Cannabinomics: The Marijuana Policy Tipping Point. Adams Press: Chicago, 2010. 5. Invited reviewer for New York City Office of the Comptroller report on Medical Marijuana, August 2013.

SPECIAL LOCAL RESPONSIBILITIES

2015-2017: Physician-champion and member of MultiCare Health System South King County Ethics Committee 2016-2017: member of MultiCare Health System Cancer Committee

1/1/2015-6/30/2015: Hospice and Palliative Medicine Fellowship representative to NIH Clinical Fellows' Committee

RESEARCH FUNDING

NSF Graduate Research Fellow, 2005-2008

BIBLIOGRAPHY

Manuscripts in Refereed Journals

Aggarwal SK. Use of cannabinoids in cancer care: palliative care. *Current Oncology*. 2016 Mar; 23(2): S33–S36. Cited in PubMed; PMID: 27022312.

Aggarwal SK, Ghosh A, Cheng MJ, Luton K, Lowet PF, Berger A. Initiating Pain and Palliative Care Outpatient Services for the Suburban Underserved in Montgomery County, Maryland: Lessons Learned at the NIH Clinical Center and MobileMed. Palliative & Supportive Care. Sept 2015; 15:15:1478-95. Cited in PubMed; PMID: 26373835.

Aggarwal SK and Blinderman CD. Cannabis for Symptom Control: Fast Facts and Concepts #279. Journal of Palliative Medicine 2014 17(5):612-614. Cited in PubMed; PMID: 24749837. Cross-published online concurrently by Fast Facts and Concepts, EPERC (End of Life / Palliative Education Resource Center), maintained by Center to Advance Palliative Care at https://www.capc.org/fast-facts/279-cannabis-symptom-control/

Aggarwal SK, Pangarkar S, Carter GT, Tribuzio B, Miedema M. Point/Counterpoint: Medical Marijuana for Failed Back Surgical Syndrome: A Viable Option for Pain Control or an Uncontrolled Narcotic? Ed: D.J. Kennedy. PM&R 2014 6:363-372. Cited in PubMed; PMID: 24766854.

Aggarwal SK, Carter GT, Sullivan MD, Morrill R, Zumbrunnen C, Mayer J. Distress, coping, and drug law enforcement in a series of patients using medical cannabis. Journal of Nervous and Mental Disease. 2013 Apr;201(4):292-303. Cited in PubMed; PMID: 23538974.

Aggarwal SK, Carter GT, Zumbrunnen C, Morrill R, Sullivan M, and Mayer JD. From 32 ounces to Zero: A medical geographic study of dispensing a cultivated batch of "Plum" cannabis flowers to qualifying medical marijuana patients in Washington State. Journal of Psychoactive Drugs. 2013 Apr-Jun;45(2):141-55; Cited in PubMed; PMID: 23909002.

Aggarwal SK. 'Tis In Our Nature: Taking the Human-Cannabis Relationship Seriously in Health Science and Public Policy. Frontiers in Psychiatry. 2013 4:6. doi: 10.3389/fpsyt.2013.00006. Cited in PubMed; PMID: 23447745.

Aggarwal SK, Carter GT, Sullivan MD, Zumbrunnen C, Morrill R, Mayer JD. Prospectively surveying health-related quality of life and symptom relief in a lot-based sample of medical cannabis-using patients in urban Washington State reveals managed chronic illness and debility. American Journal of Hospice and Palliative Medicine. 2013 Sep;30(6):523-31; Epub 2012 Aug 10. Cited in PubMed; PMID: 22887696.

Aggarwal SK, Carter GT, ZumBrunnen C, Morrill R, Sullivan MD, Mayer JD. Psychoactive substances and the political ecology of mental distress. Harm Reduction Journal. 2012 Jan; (Highly Accessed) 9(4): open-access. Cited in PubMed; PMID: 22257499.

Aggarwal SK. Cannabinergic pain medicine: A concise clinical primer and survey of randomized-controlled trial results. Clinical Journal of Pain. 2013 Feb;29(2):162-71. Cited in PubMed; PMID: 22367503. *Featured on cover

Carter GT, Flanagan AM, Earleywine M, Abrams DI, Aggarwal SK, Grinspoon L. Cannabis in palliative medicine: Improving care and reducing opioid-related morbidity. American Journal of Hospice and Palliative Medicine. 2011 Aug; 28(5): 297-303. Cited in PubMed; PMID: 21444324.

Carter GT, Abood ME, Aggarwal SK, Weiss MD. Cannabis and amyotrophic lateral sclerosis: Hypothetical and practical applications, and a call for clinical trials. American Journal of Hospice and Palliative Medicine. 2010 May; 27(5): 347-356. Cited in PubMed; PMID: 20439484.

Aggarwal SK. Cannabis: A commonwealth medicinal plant, long suppressed, now at risk of monopolization. Denver University Law Review. 2010 Aug; 88(-): 1-12.

Aggarwal SK, Carter GT, Sullivan MD, Morrill R, ZumBrunnen C, Mayer JD. Medicinal use of cannabis in the United States: Historical perspectives, current trends, and future directions. Journal of Opioid Management. 2009 May; 5(3): 153-168. Cited in PubMed; PMID: 19662925. ** Cited over 100 times. Cited in 2013 United Nations World Drug Report, translated into Spanish by the Council on Social Science Research, and cited in undergraduate textbook *Discovering Psychology*

Aggarwal SK, Carter GT, Sullivan MD, Morrill R, ZumBrunnen C, Mayer JD. Characteristics of patients with chronic pain accessing treatment with medical cannabis in Washington State. Journal of Opioid Management. 2009 Sep; 5(5): 257-286. Cited in PubMed; PMID: 19947069.

Aggarwal SK, Kyashna-Tocha M, Carter GT. Dosing medical marijuana: Rational guidelines on trial in Washington State. Medscape General Medicine. 2007 Sep; 9(3): 52. Cited in PubMed; PMID: 18092058.

Aggarwal SK, Carter GT, Steinborn JJ. Clearing the air: What the latest Supreme Court decision regarding medical marijuana really means. American Journal of Hospice and Palliative Medicine. 2005 Sep; 22(5): 327-329. Cited in PubMed; PMID: 16225351.

Aggarwal SK, Hemscheidt T. Elicitation of antibiotically active secondary metabolites from co-cultured marine bacteria. Berkeley Scientific Journal. 2002 May; 6(1): 39-42.

Book Chapters

Aggarwal SK and Pettus K. Pain and Controlled Pain Relieving Substances. In: Corns J (ed). *Routledge Handbook of Philosophy of Pain*. (anticipated, 2017)

Carter GT, Aggarwal SK, Weiss MD, Bedlack R. (2014) Complementary and Alternative Medicine. In: Oliver D, Borasio GD, Johnston W (Eds.) *Palliative Care in Amyotrophic Lateral Sclerosis: From Diagnosis to Bereavement* (pp. 245-256). Third edition. New York, NY: Oxford University Press.

Aggarwal SK. Medical Marijuana Potpourri, in Medical Marijuana-Medical, Legal, Social and Political Issues: <u>The Answer Page</u>, Inc; 2013 (electronic).

Aggarwal SK. Medicinal Cannabis in the Treatment of Chronic Pain Syndromes, in Medical Marijuana-Medical, Legal, Social and Political Issues: The Answer Page, Inc; 2013 (electronic).

Shaiova, L., Farber, L.A., & Aggarwal, S.K. (2012). Difficult pain syndromes: Bone pain, visceral pain, and neuropathic pain. In A.M. Berger, J.L. Shuster, J.H. Von Roenn (Ed.), *Principles and Practice of Palliative Care and Supportive Oncology* (pp. 2-22). New Haven, CT. Lippincott.

Aggarwal, S.K., & Carter, G.T. (2010). Cannabinoids and neuroprotection. In J. Holland (Ed.), *The Pot Book: A Complete Guide to Cannabis* (pp. 295-310). Rochester, VT. Park Street Press.

Books-Electronic

Aggarwal SK. (Site Editor and Contributing Author) The Answer Page, Inc; 2013. AMA PRA Category 1 CME Credits™ provider. Featured by Massachusetts Medical Society, publishers of *The New England Journal of Medicine* at http://www.massmed.org/Continuing-Education-and-Events/Online-CME/Medical-Marijuana-CME/#.Ud3fhUGsiSp

Abstracts

Thiessen, M. S., Walsh, Z., Crosby, K., Russo, E., Chaudhuri, T., & Aggarwal, S. (2017 June). Cannabis Use in India: Characteristics, Access, and Reasons for Use. Poster presented at the 27th Annual ICRS Symposium on the Cannabinoids. Montreal, QC.

Nayak S, Aggarwal SK, Kander J, Nanda P, Tripathy S, Pushplata K, Rao B, Begum BZ, Mohant S. (2014, December). *Cannabinoid Botanicals in Cancer Treatment*. Poster presented at 2014 World Cancer Congress. Abstract published in Asia-Pacific Journal of Clinical Oncology 10:204-5.

Aggarwal, S. (2013, March). Cannabinergic Pain Medicine: Developing A Concise Clinical Primer And Surveying Randomized-controlled Trial Results. Poster presented at: Annual Assembly of the American Academy of Hospice and Palliative Medicine; New Orleans, LA. *Poster Award Winner

Aggarwal, S. (2013, March). Health-Related Quality Of Life And Symptom Relief In A Sample Of Chronically III And Debilitated Medical Cannabis Patients In Urban Washington State: Comparisons With Normative And Chronically III Patient Samples. Poster presented at: Annual Assembly of the American Academy of Hospice and Palliative Medicine; New Orleans, LA.

Aggarwal, S. (2007, April). The Political Ecology of Cannabinergic Botanical Medicine Access and Delivery: Cost-Effectiveness and Death Penalty Apportionment for a Germplasm-Linked Group of Qualifying Patients in Washington State. Poster presented at: 2007 MD/PhD Conference: Rethinking Health, Culture, and Society: Physician-Scholars in the Social Sciences and Medical Humanities; Chicago, IL. Aggarwal, S. (2007, August). *The Medical Geography of Medical Marijuana*. Poster presented at: University of Washington Medical Scientist Training Program Poster Session; Coupeville, WA.

Aggarwal, S. (2004, August). *Developing a Depression Management System: A Small Follow-up Study*. Poster presented at: University of Washington Medical Scientist Training Program Poster Session; Leavenworth, WA.

SELECTED ORAL PRESENTATIONS

Aggarwal S. (2016, July 10). "Pain and Palliative Care". Vancouver Cannabis Hemp Conference. Vancouver, B.C.

Aggarwal S. (2016, January 23). "Cannabinoid Integrative Health Science 101". Opening Speaker at 2016 Virtual Cannabis Health Summit. Two-day event live streamed to 28,500 people from over 104 countries, with 4000-14000 simultaneously tuning in at various times. Produced by Green Flower Media. Pleasanton, CA.

Aggarwal S. (2016, January 8). "Cannabis Therapy & Use". Invited Panelist at 2016 Washington Cannabis Summit. Sea-Tac, WA.

Aggawal S. (2015, October 16). "Cannabinoid Integrative Medicine in Oncology & Palliative Care: Benefits and Burdens". Invited Oral Presentation to MultiCare Oncology Group, Medical Oncology Clinic, Katterhagen Resource Center, Tacoma General Hospital, Tacoma, WA.

Aggarwal, S. (2014, May 1). "Drug Reform from Different Perspectives: An Overview". Invited Panelist at Marijuana & Drug Policy Reform in New York—The LaGuardia Report at 70. A Symposium Hosted by The New York Academy of Medicine and the Drug Policy Alliance. New York, NY

Aggarwal, S. (2014, April 21). "Cannabinoid Medical Science and Political Ecology: Psychoactive Substances and Mental Distress". Invited to present at Humboldt Institute for Interdisciplinary Marijuana Research Annual Speaker Series. Arcata, CA.

Aggarwal, S. (2014, March 4). "Cannabinoid Medical Science and Political Ecology: Psychoactive Substances and Mental Distress". Invited Evening Lecture at New School for Social Research, hosted by Department of Psychology. New York, NY.

Aggarwal, S. (2014, January 15). "Compassionate Care: Medical Cannabis in NY". Invited Guest Lecture at Albert Einstein College of Medicine Social Medicine Course. New York, NY.

Aggarwal, S (2013, August). "Uses of Medical Cannabis". Invited to present at Rush Medical College Lunch Webinar hosted by PM&R Interest Group; Chicago, IL.

Aggarwal, S. (2013, May 30). "The Current Evidence Base". Invited Speaker The New School Forum: Demystifying Medical Marijuana in New York: Implications for Mental Health and Drug Treatment Providers. The New School for Social Research, New York, NY.

Aggarwal, S. (2013, May 28). "Medical Marijuana in New York State: Focus on MS". Presentation at Long Island MS Monthly Social Night, Affiliate of the Multiple Sclerosis Foundation Independent Support Group Network. Melville, NY.

Aggarwal, S. (2013, April). Career Panel Invited Panelist + "Activism for Innovation in Medicine" Breakout Session Leader. Oral Presentation presented at: 2013 National Conference for Physician-Scholars in the Social Sciences and Humanities; San Francisco, CA.

Aggarwal, S. (2012, December). Rehabilitation of patients with brain cancer: a review of the neurologic, medical, and rehabilitative issues. Co-presented In-Service focusing on role of Palliative Care, with Dr. Heidi Fusco, Brain Injury Fellow, 12/12/12, Rehabilitation Medicine Department, Hospital for Joint Diseases; New York, NY.

Aggarwal, S. (2012, September). *Medical Cannabis in New Jersey*. Oral Presentation presented at: Grand Rounds, Hackensack University Medical Center, Hosted by Department of Pain and Palliative Medicine, Invited by hosted by Dr. Jose Contreras, director, Pain and Palliative Medicine Institute; Hackensack, NJ.

Aggarwal, S. (2012, September). *Medical Marijuana in New York State*. Oral Presentation presented at: Invited Keynote Speaker, Free Educational Program, Multiple Sclerosis Resources of Central New York; Syracuse, NY.

Aggarwal, S. (2011, September). *Alternative and Rehabilitative Approaches to Managing Neuromuscular Disease: Cannabinergic Treatments*. Oral Presentation presented at: Neuromuscular Update Course II: Non-pharmacologic Treatment of Neuromuscular Disease. 58th Annual Meeting of American Academy of Neuromuscular and Electrodiagnostic Medicine. Corresponding manuscript co-authored with Carter GT published in course syllabus; San Francisco, CA. CME Accredited.

Aggarwal, S. (2011, June). Cannabis and Its Role in the Treatment of Neurologic Diseases or 'Cannabinergic Neurology'. Oral Presentation presented at: Virginia Mason Medical Center, Neuroscience Institute, Invited Presentation to Neurology Service; Seattle, WA.

Aggarwal, S. (2011, June). *Pharmacies' and Pharmacists' Roles After Marijuana Rescheduling: Facilitating Cannabinergic Medicine Research and Practice*. Oral Presentation presented at: Northwest Pharmacy Convention, organized by Washington State Pharmacy Association; Coeur d'Alene, ID. CPhE Accredited.

Aggarwal, S. (2011, May). *Cannabis: A Commonwealth Medicinal Plant, Long Suppressed, Now at Risk of Monopolization*. Oral Presentation presented at: Symposium on "Cannabinoid Medicine: Discovery, Evolution, and Status in 2011" at 164th Annual Meeting of the American Psychiatric Association; Honolulu, HI. CME Accredited.

Aggarwal, S. (2010, September). Celebrating the Therapeutic Commons: Accepted Medical Uses of Cannabis, Psilocybin, and Other Schedule I Substances. Oral Presentation presented at: 2010 Smoke Farm Symposium: The World That Pretended to Be What it Was; Arlington, WA.

Aggarwal, S. (2010, June). The AMA on marijuana, 73 years ago and today. From psychotherapeutic surfacing of the unconscious to cannabinoid-based relief of neuropathic pain. Oral Presentation presented at: Bastyr University Symposium: Psychedelic medicines and their current researched clinical applications; Kenmore, WA.

Aggarwal, S. (2010, April). Geographic Snapshots of Medical Cannabis Access and Delivery in Washington State. Oral Presentation presented at: 6th National Clinical Conference on Cannabis Therapeutics; Warwick, RI. CME Accredited.

Aggarwal, S. (2010, April). "Medical Marijuana: Medicinal Value, Harms, and Effects." An hour-long debate with Alice P. Mead, JD, GW Pharmaceuticals Legal Representative. Oral Presentation presented at: University of Denver Law School Medical Marijuana Symposium; Denver, CO.

Aggarwal, S. (2009, December). Is the Time Right for Medical Marijuana: Are These Medical Miracles?. Oral Presentation presented at: 2009 National Association of Boards of Pharmacy Annual Symposium; Tuscon, AZ. CPhE Accredited.

Aggarwal, S. (2009, March). The medical geography of cannabinoid botanicals in Washington State: Access, delivery, and distress. Oral Presentation presented at: 2009 National Conference for Physician Scholars in the Social Sciences and Humanities; Philadelphia, PA.

Aggarwal, S. (2007, June). Learning About Medical Marijuana as a Medical Student in a Medical Marijuana State. Oral Presentation presented at: Symposium in Exile: Medical Marijuana: Myths, Facts & Current Science. Presented by The Medical Marijuana Policy Advocacy Project with Roosevelt University's Illinois Consortium on Drug Policy, Students for Sensible Drug Policy (RU), and Drug Policy Alliance; Chicago, IL.

Aggarwal, S. (2007, April). Being Virtually There: Roundtable on Virtual Methodologies. Oral Presentation presented at: Association of American Geographers Annual Meeting; San Francisco, CA.

Aggarwal, S. (2007, April). *Doctoral Dissertation Proposal*. Oral Presentation presented at: 2007 Association of American Geographers Annual Meeting; San Francisco, CA.

Aggarwal, S. (2007, February). *The Medical Consequences of the Drug War: A Focus on Violence*. Oral Presentation presented at: 2007 National Student Physicians for Social Responsibility Conference, Stanford University; Palo Alto, CA.

Aggarwal, S. (2006, November). *Emergency Cross-Border Prison Extractions in the Americas: Global Health, Structural Violence, and the Enforcement of Evidence-Denying Prohibitions on Botanical Biota.* Oral Presentation presented at: 'Students Moving Mountains': UW Students Speak on the Themes of the UW Common Book. Sponsored by University of Washington Libraries and the Friends of the UW Libraries; Seattle, WA.

Aggarwal, S. (2006, August). Sociomedical context of cannabis therapeutics. Oral Presentation presented at: Staff Retreat of Rosehedge: AIDS Housing & Health Care; Seattle, WA

Aggarwal, S. (2001, March). Before the Blizzard Came: the Rise and Fall of the 1890 Ghost Dance Religion. Oral Presentation presented at: 2001 American Academy of Religion Western Regional Meeting; Claremont, CA.

PUBLIC SCHOLARSHIP

10/2013 - 2/2015

Medical Cannabis and Chronic Pain: Science-Based Education in Times of Legalization. Invited External Consultant –at-Large for project, conducted at the University of Washington Alcohol & Drug Abuse Institute and funded by the Washington State Office of the Attorney General aiming to address gaps in science-based training and education in the area of chronic pain management and medicinal cannabis use. (adai.uw.edu/mcacp)

Health Scientist Blacklisting and the Meaning of Marijuana in the Oval Office in the Early 1970s. Aggarwal SK. (graphics and layout by Steve Hyde). July 1, 2015. https://medium.com/@ReachCASP/health-scientist-blacklisting-and-the-meaning-of-marijuana-in-the-oval-office-in-the-early-1970s-71ea41427b49 (on record with Vermont State Legislature)

Cannabinoid Integrative Health 101. Aggarwal SK. *Huffington Post*, 2016, April 25. (Opinion). http://www.huffingtonpost.com/sunil-kumar-aggarwal/cannabinoid-integrative-h_b_9712774.html.

Cannabis, Medical Science, and Fundamental Human Rights, With Dr. Ethan Russo. Russo EB and Aggarwal SK. *Huffington Post*, 2015, October 20. (Opinion). http://www.huffingtonpost.com/sunil-kumar-aggarwal/cannabis-science-and-fund_b_8334384.html

'9 Percent of Those Who Use Cannabis Become Dependent' Is Based on Drug War Diagnostics and Bad Science. Aggarwal SK. *Huffington Post*, 2014, January 29. (Opinion). http://www.huffingtonpost.com/sunil-kumar-aggarwal/cannabis-depedency-drug-war-bad-science_b_4675961.html.

Pfizer Fine Funds Pot Education Classes for Docs in Washington. Aggarwal SK. *SFgate.com*, 2013, November 1. (Opinion). http://blog.sfgate.com/smellthetruth/2013/11/01/pfizer-fine-funds-pot-education-classes-for-docs-in-washington/

Calling Justice-Loving South Asians to Dismantle the Drug War, Free People and Plants, and Foster Health and Development for Millions. Aggarwal SK. *Huffington Post*, 2013, September 20. (Opinion). http://www.huffingtonpost.com/sunil-kumar-aggarwal/south-asians-war-on-drugs b 3948168.html

Cultivating Local Medical Cannabis Systems Is the Way Forward. Aggarwal SK. *Huffington Post*, 2013, August 21. (Opinion). http://www.huffingtonpost.com/sunil-kumar-aggarwal/local-medical-cannabis_b_3782901.html

5 Biggest Lies from Anti-Pot Propagandist Kevin Sabet. Aggarwal SK. *AlterNet*, 2013, August 8. (Opinion). http://www.alternet.org/drugs/5-biggest-lies-anti-pot-propagandist-kevin-sabet

Needless Suffering of Medical Marijuana Patient Embodies Federal-State Conflict: A Prison Extraction. Aggarwal SK. *Huffington Post*, 2013, July 19. (Opinion). http://www.huffingtonpost.com/sunil-kumar-aggarwal/medical-marijuana-patient b 3619067.html

The marijuana Rx for sick New Yorkers. Blinderman CD and Aggarwal SK. (Opinion). *New York Daily News*. Published 2013, June 5. (Opinion). http://www.nydailynews.com/opinion/marijuana-rx-sick-new-yorkers-article-1.1363212#ixzz2VMsYBiVg

Medical Cannabis in the Empire State: It's Right and It's Respectable. Aggarwal SK. *Huffington Post*, 2013, May 14. (Opinion). http://www.huffingtonpost.com/sunil-kumar-aggarwal/medical-cannabis-nyc_b_3204825.html

Adequate and Well-Controlled Studies Proving Medical Efficacy of Cannabis Exist but Are Ignored by Marijuana Schedulers. Aggarwal SK and Reiman A. *Huffington Post*, 2013, April 15. (Opinion). http://www.huffingtonpost.com/sunil-kumar-aggarwal/marijuana-schedule-1 b 3071725.html

If You Are Strongly in Favor of Marijuana Decriminalization, It Is Hypocritical to Oppose Medical Marijuana. Aggarwal SK. *Huffington Post*, 2013, January 24. (Opinion). http://www.huffingtonpost.com/sunil-kumar-aggarwal/new-york-medical-marijuana b 2542144.html

Aggarwal SK. (2005, June 9). The world within us. *Mantranjali, Souvenir Book on the occasion of Prana Prathishtapana and Maha Kumbhabhishekam, the dedication of sanctum sanctorum, Hindu Temple of Greater Tulsa.*

Research on Health-Related Quality of Life in Medical Cannabis-Using Patients. Aggarwal SK. Americans for Safe Access blog. Medical Cannabis: Voices from the Frontlines. March 27, 2013. http://safeaccessnow.org/blog/blog/2013/03/27/research-on-health-related-quality-of-life-in-medical-cannabis-using-

patients/#more-3628

Cannabinopathic Medicine: Lester Grinspoon, M.D.'s New Coinage. Aggarwal SK. Americans for Safe Access blog. Medical Cannabis: Voices from the Frontlines. March 14, 2013.

http://safeaccessnow.org/blog/blog/2013/03/14/cannabinopathic-medicine-lester-grinspoon-m-d-s-new-coinage/

Medical Prescribers Launch National Letter for Medical Cannabis. Aggarwal SK. Americans for Safe Access blog. Medical Cannabis: Voices from the Frontlines. September 6, 2012.

http://safeaccessnow.org/blog/blog/2012/09/06/medical-prescribers-launch-national-letter-for-medical-cannabis/

Medical Cannabis Researcher Explains Recent Scientific Review. Aggarwal SK. Americans for Safe Access blog. Medical Cannabis: Voices from the Frontlines. July 9, 2012. http://safeaccessnow.org/blog/blog/2012/07/09/medical-cannabis-researcher-explains-recent-scientific-review/

Aggarwal SK. (2009, November 30). Should the federal government reclassify or reschedule marijuana to make it available for use by prescription for pain management? Yes! The government should reclassify marijuana. Point/Counter Point for Pain.com.

http://web.archive.org/web/20091215154404/http://www.pain.com/go/default/practitioner/pointcounter-point/thegovernment-should-reclassify-marijuana/.

Media: Interviewed for

History Channel H2 Hooked: Illegal Drugs: Marijuana (2014)

History Channel's The Marijuana Revolution (2016)

Airing on multiple Public TV channels: For the Life of Me: Between Science and the Law (2014)

Profiled on November 22, 2009 in The Chronicle for Higher Education

Other outlets available upon request.