A man with short dark hair and a light beard, wearing a brown long-sleeved shirt, is sitting on a wooden bench. He is looking directly at the camera with a slight smile. In his right hand, he holds a small green plant with several leaves. The background is a wall made of woven bamboo or reeds. The ground is reddish-brown earth.

# Sidama Traditional Medicinal Plants:

An ethnobotanical study from southwestern  
Ethiopia

Alex McAlvay



A young woman with dark skin and hair is smiling slightly, looking towards the camera. She is wearing a light-colored t-shirt with a dark purple collar and a graphic design on the front. The background is a dense forest with tall, thin trees and green foliage. The text is overlaid on the image in a bright yellow color.

# Overview

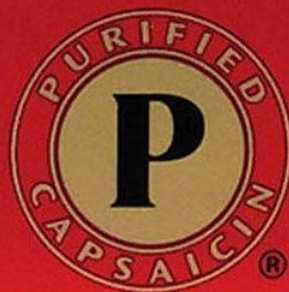
1. Herbs and surgery

1. Sidama project



ARTHRITIS PAIN RELIEF

**Doctor  
Recommended**  
(Refers to the ingredient capsaicin)



**#1 Pharmacist  
Recommended**  
(Based on Pharmacy Times 2005 Survey)

*Deep Penetrating • Odor Free • HIGH POTENCY*  
**CAPZASIN-HP**  
ARTHRITIS PAIN RELIEF

*Deep Penetrating • Odor Free • HIGH POTENCY*  
**CAPZASIN-HP**®

ARTHRITIS PAIN RELIEF

CAPSAICIN 0.1%

TOPICAL ANALGESIC CREME

Net wt 1.5 oz (42.5 g)



# Prevalence of herbal medicine

- Worldwide<sup>1</sup>
- U.S.<sup>2</sup>
- Immigrants<sup>3,11</sup>



# Herb-drug interactions and surgery

- **Many actions not investigated<sup>5</sup>**
- **Effects on drug effectiveness, anaesthesia, clotting<sup>6</sup>**
- **ASA suggestions**





# Nondisclosure

A photograph of a female doctor with short grey hair, wearing a white lab coat and a stethoscope, smiling warmly at an elderly patient with white hair. The patient is wearing a blue hospital gown. The background is a clinical setting with a blurred monitor.

- **Up to 70%<sup>7</sup>**
- **Reasons given<sup>7</sup>**
- **Minorities<sup>7</sup>**
- **Perceived quality of healthcare<sup>8</sup>**
- **Patient education<sup>9</sup>**





# The study





# Objectives of study

1. Knowledge to doctors

1. Knowledge to Sidama



# The Sidama





# Methods





# Overview of results

A person is sitting on the floor, surrounded by various medicinal plants and powders. The person is wearing a brown jacket and a patterned shawl. There are several bags and bowls containing different types of powders and dried plants. A yellow jug is visible in the background. The scene appears to be a traditional pharmacy or a place where medicinal plants are prepared.

1. Uses: 47 species, 36 diseases

2. Pharm: 91.8% active  
40.9% matching





# Uses





A close-up photograph of a woman lying down. She has dark hair and is looking towards the camera with a slight smile. A purple cloth is draped over her chest, and a striped shirt is visible on her shoulder. The background is a textured, light-colored surface.

## Local disease concepts

- *Dingatenia*
- *M'utch*
- *Yelelito Wof*



# Anticoagulant herbs mentioned

*Ocimum basilicum*<sup>3</sup>

*Nigella sativa*<sup>3</sup>

*Capsicum annuum*<sup>3</sup>

*Cuminum cyminum*<sup>3</sup>

*Trigonella foenum-graecum*<sup>3</sup>

*Linum usitatissimum*<sup>3</sup>

*Allium sativum*<sup>3</sup>

*Zingiber officinale*<sup>3</sup>

*Ruta chalepensis*<sup>3</sup>

*Curcuma longa*<sup>3</sup>

*Mentha x piperita*<sup>3</sup>



# Handbook

*Lepidium sativum*



<i>Lepidium sativum</i> (cress)	Amharic: Feto Sidama: Feto
Medicinal use: Stomach problems; M'utch	Part(s) used: seeds Preparation & Administration: small seeds ground into paste-like mustard, eaten for stomach issues and M'utch. Can also be applied topically for M'utch
Adverse Effects (if any):	
Pharmacological properties	Glucotropaeolin, 2-phenyl ethyl glucosinolate, 2-ethyl butyl glucosinolate - antiinflammatory, antipyretic, analgesic, coagulant activities (39).

*Leucas martinicensis*



<i>Leucas martinicensis</i>	Amharic: Raskamer Sidama: Burdicho
Medicinal use: cataracts	Part(s) used: leaves Preparation & Administration: leaves crushed and squeeze juice into eyes; one drop in each eye in the morning and evening
Adverse Effects (if any):	
Pharmacological properties	Flavonoids, alkanoids, volatile oil (from leave extracts) – mosquito repellent (30).



# Moving ahead

- Collaboration
- Communication
- Understanding





# Acknowledgements



School of Medicine  
and Public Health  
UNIVERSITY OF WISCONSIN-MADISON



UNIVERSITY OF WISCONSIN SCHOOL OF MEDICINE AND PUBLIC HEALTH  
**Department of Surgery**  
*Remarkable People. Remarkable Results.*



COLLEGE OF  
**AGRICULTURAL & LIFE SCIENCES**  
University of Wisconsin-Madison

- Senior council and community members of Aleta Wondo
- Heidi Busse, Dr. Girma Tefera, and Ephrem Abebe Aboneh
- Common River Non-Profit
- 2013 Ethiopia Field Course.



## Works Cited

1. National Policy on Traditional Medicine and Regulation of Herbal Medicines - Report of a WHO Global Survey
2. *Ang-Lee M, Moss J, Yuan CS. Herbal medicines and perioperative care. JAMA2001;286:208-216.*
3. Papadopoulos, R., Lay, M., Gebrehiwot, A. (2002 May). Cultural snapshots: A guide to Ethiopian refugees for health care workers. Research Center for Trans-cultural Studies in Health. Middlesex University, London.
4. *American Society of Anesthesiology. What you should know about herbal and dietary supplement use and anesthesia. 2003. Patient Information Leaflet.*
5. *Herbal medicines and anaesthesia Adrian Wong, BSc (Hons) MRCP (UK). Contin Educ Anaesth Crit Care Pain (2011) 11 (1): 14-17.*
6. Fullas, F. (2003). Spice plants in Ethiopia: their culinary and medicinal applications. Iowa, USA: Library Congress Cataloging.
7. 1. *Kaye AD, Clarke RC, Sabar R. et al. Herbal medications: current trends in anesthesiology practice—a hospital survey. J Clin Anesth.2000;12:468-471.*
8. 2. Chao, Maria T., Christine Wade, and Fredi Kronenberg. "Disclosure of complementary and alternative medicine to conventional medical providers: variation by race/ethnicity and type of CAM." *Journal of the National Medical Association* 100, no. 11 (2008): 1341.
9. 3. Ahn AC, Ngo-Metzger Q, Legedza ATR, et al. Complementary and alternative medical therapy use among Chinese and Vietnamese Americans: Prevalence, associated factors, and effects of patient-clinician communication. *Am J Public Health.* 2006;96:647–653.
10. Terrazas, Aaron Matteo (June 2007). ["Beyond Regional Circularity: The Emergence of an Ethiopian Diaspora"](#). [Migration Policy Institute](#). Retrieved 2011-11-25



## Images used

[http://www.springerimages.com/img/Images/Springer/JOU=10457/VOL=2010.78/ISU=3/ART=2009\\_9246/MediaObjects/MEDIUM\\_10457\\_2009\\_9246\\_Fig1\\_HTML.jpg](http://www.springerimages.com/img/Images/Springer/JOU=10457/VOL=2010.78/ISU=3/ART=2009_9246/MediaObjects/MEDIUM_10457_2009_9246_Fig1_HTML.jpg)

[http://ethnomed.org/culture/ethiopian/images\\_ethiopian/photo-traditional-medicine-ethiopia](http://ethnomed.org/culture/ethiopian/images_ethiopian/photo-traditional-medicine-ethiopia)

[http://1.bp.blogspot.com/\\_ArEWneHvjRm/Siulf6dl8DI/AAAAAAAAAxY/b1gqGwQ24yM/s400/blood+clotting+1.jpg](http://1.bp.blogspot.com/_ArEWneHvjRm/Siulf6dl8DI/AAAAAAAAAxY/b1gqGwQ24yM/s400/blood+clotting+1.jpg)

<http://4.bp.blogspot.com/-I--8dQaFp8s/Tq-Tlj4oyFI/AAAAAAAAABh0/wTsFPSMdWz0/s400/Eucalyptus.jpg>

[http://www.theroasterie.com/blog/wp-content/uploads/2012/10/coffee\\_plant\\_red\\_berries\\_4.jpg](http://www.theroasterie.com/blog/wp-content/uploads/2012/10/coffee_plant_red_berries_4.jpg)

[http://aphs.worldnomads.com/david/24626/MG\\_9351\\_b2.jpg](http://aphs.worldnomads.com/david/24626/MG_9351_b2.jpg)

<http://www.choosehealthmatters.com/wp-content/uploads/2013/02/HerbalRemedies.jpg>

<http://training.mmlearn.org/Portals/114266/images/C--Documents%20and%20Settings-ninar-Desktop-Images-Doctor%20and%20Patient%20Communication.jpg>

<http://cdn1.electronicintifada.net/sites/electronicintifada.net/files/traditional-medicine.jpg>