

Natural Alternative Use Case (Kei Cheung and Jun Zhao)

- Explore how patients might use multilingual social and semantic bookmarking tools for finding and sharing Web resources for natural alternatives for disease treatment
- Ginkgo biloba is an herb that has been used as a natural supplement for treating Alzheimer disease
- Faviki is a social and semantic bookmarking tool supporting different languages

Part 1:

Ginkgo biloba -- a natural supplement
for treating Alzheimer Disease

Resources for Finding Alternative Treatment of Alzheimer Disease

(e.g., <http://www.alzforum.org>)

The screenshot displays the Alzheimer Research Forum website. The header features the logo and the tagline "NETWORKING FOR A CURE". A search bar and a "Get Newsletter" link are in the top right. The left sidebar contains a navigation menu with categories like "EARLY-ONSET FAMILIAL", "Overview", "Diagnosis/Genetics", "Research", "News", "Profiles", "Clinics", "DRUG DEVELOPMENT", "Companies", "Tutorial", "Drugs in Clinical Trials", "DISEASE MANAGEMENT", "About Alzheimer's", "FAQs", "Diagnosis", "Treatment", "Caregiving", and "Support Directory". The main content area is divided into three columns. The first column lists "Alternative Treatments" including Aromatherapy, Dynamic Psychotherapy, Electroconvulsive Therapy, Ginkgo Biloba Extract (circled in red), Music Therapy, Nonpharmacologic Treatment of Behavioral Disturbances, Phototherapy, Transcutaneous Electrical Nerve Stimulation (TENS), and Wine. The second column lists "Other Approved/Over-the-Counter Medications" including Risperidone (Risperidol [TM]), Serotonin Reuptake Inhibitors (SRIs), and Benzodiazepines. The third column lists "Disease Management Related Links" including Alzheimer's Association, Medline Plus: Health Information on Alzheimer's Disease, Alzheimer Association Message Boards and Chatrooms, and Participate in Research.

ALZHEIMER RESEARCH FORUM
NETWORKING FOR A CURE

Search Get Newsletter
Google
Search Papers
Search Index

EARLY-ONSET FAMILIAL

Overview
Diagnosis/Genetics
Research
News
Profiles
Clinics

DRUG DEVELOPMENT

Companies
Tutorial
Drugs in Clinical Trials

DISEASE MANAGEMENT

About Alzheimer's
FAQs
Diagnosis
Clinical Guidelines
Tests
Brain Banks
Treatment
Drugs and Therapies
Caregiving
Patient Care
Support Directory

▫ [Risperidone \(Risperidol \[TM\]\)](#)
▫ [Serotonin Reuptake Inhibitors \(SRIs\)](#)
▫ [Benzodiazepines](#)

ALTERNATIVE TREATMENTS

▫ [Aromatherapy](#)
▫ [Dynamic Psychotherapy](#)
▫ [Electroconvulsive Therapy](#)
▫ [Ginkgo Biloba Extract](#)
▫ [Music Therapy](#)
▫ [Nonpharmacologic Treatment of Behavioral Disturbances](#)
▫ [Phototherapy](#)
▫ [Transcutaneous Electrical Nerve Stimulation \(TENS\)](#)
▫ [Wine](#)

OTHER APPROVED/OVER-THE-COUNTER MEDICATIONS

Disease Management Related Links

▫ [Alzheimer's Association](#)
▫ [Medline Plus: Health Information on Alzheimer's Disease](#)
▫ [Alzheimer Association Message Boards and Chatrooms](#)

Participate in Research
See a list of research studies, projects, and clinical trials in

Chinese Wikipedia (Ginkgo biloba)

(<http://zh.wikipedia.org/wiki/%E9%8A%80%E6%9D%8F>)

银杏

维基百科，自由的百科全书

([重定向自銀杏](#))

银杏（学名：*Ginkgo biloba*），又名**白果**，是一种**子遗植物**，和它同門的所有其他植物都已灭绝。

目录 [[隐藏](#)]

- [1 历史](#)
- [2 外形](#)
- [3 特点和用处](#)
- [4 银杏之乡](#)
- [5 参考](#)
- [6 外部链接](#)

历史

[\[编辑\]](#)

和它相亲的植物在两亿七千年前就已经生成，属于银杏門。在大约一亿多年前的**侏羅紀**後期，银杏类广泛分布于地球上。而现在的银杏是这类植物

銀杏

?

化石時期：**侏罗纪** - **上新世**



銀杏葉

保护现状



瀕危 (IUCN)

科學分類

界：**植物界** Plantae
門：**銀杏門** Ginkgophyta
綱：**銀杏綱** Ginkgoopsida
目：**銀杏目** Ginkgoales

Medline Plus

(<http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-ginkgo.html>)

Ginkgo (Ginkgo biloba L.)

 [Printer-friendly version](#)  [E-mail to a friend](#)

Contents of this page:

- [Background](#)
- [Synonyms](#)
- [Evidence](#)
- [Dosing](#)
- [Safety](#)
- [Interactions](#)
- [Methodology](#)
- [Selected references](#)



Ginkgo

Background [Return to top](#)

Ginkgo biloba has been used medicinally for thousands of years. Today, it is one of the top selling herbs in the United States.

Ginkgo is used for the treatment of numerous conditions, many of which are under scientific investigation. Available evidence demonstrates ginkgo's efficacy in the management of intermittent claudication, Alzheimer's/multi-infarct dementia, and "cerebral insufficiency" (a syndrome thought to be secondary to atherosclerotic disease, characterized by impaired concentration, confusion, decreased physical performance, fatigue, headache, dizziness, depression, and anxiety).

Although not definitive, there is promising early evidence favoring the use of ginkgo for memory enhancement in healthy subjects, altitude (mountain) sickness, symptoms of premenstrual syndrome (PMS), and reduction of chemotherapy-induced end-organ vascular damage.

Although still controversial, a recent large trial has shifted the evidence against the use of ginkgo for tinnitus.

The herb is generally well tolerated, but due to multiple case reports of bleeding, should be used cautiously in patients on anticoagulant therapy, with known coagulopathy, or prior to some surgical or dental procedures.

Synonyms [Return to top](#)

Adiantifolia, AKL1, arbre aux quarante écus, ArginMax®, bai guo ye, baiguo, BioGinkgo®, Blackmores Ginkgo Brahmi (*Bacopa monniera*), BN-52063, duck foot tree, EGb, EGb 761, Elefantenoher, Eun-haeng, fächerblattbaum, Fossil tree, GBE, GBE 24, GBX, gin-nan, ginnan, Gincosan®, Ginexin Remind®, Gingopret®, Ginkai®, ginkgo balm, *Ginkgo biloba* blätter, Ginkgo biloba exocarp polysaccharides (GBEP), Ginkgo folium, Ginkgo Go®, Ginkgo Phytosome®, Ginkgo Powder®, Ginkgoaceae (family), ginkgoblätter,

Medline Plus (cont'd)

Side Effects and Warnings

Overall, ginkgo leaf extract (used in most commercial products) appears to be well tolerated in most healthy adults at recommended doses for up to six months. Minor symptoms including headache, nausea, and intestinal complaints have been reported.

Bleeding has been associated with the use of ginkgo taken by mouth, and caution is advised in patients with bleeding disorders or taking drugs/herbs/supplements that may increase the risk of bleeding. Dosing adjustments may be necessary. Ginkgo should be stopped prior to some surgical or dental procedures. Reports of bleeding range from nose bleeds to life-threatening bleeding in several case reports. In some of these reports, ginkgo has been used with other agents that may also cause bleeding.

Eating the seeds is potentially deadly, due to risk of tonic-clonic seizures and loss of consciousness.

Based on human study, ginkgo may theoretically affect insulin and blood sugar levels. Caution is advised in patients with diabetes or hypoglycemia, and in those taking drugs, herbs, or supplements that affect blood sugar. Serum glucose levels may need to be monitored by a healthcare professional, and medication adjustments may be necessary.

There have been uncommon reports of dizziness, stomach upset, diarrhea, vomiting, muscle weakness, loss of muscle tone, restlessness, racing heart, rash, and irritation around the mouth with the use of ginkgo. There is a case report of "coma" in an elderly Alzheimer's patient taking trazodone and ginkgo, although it is not clear that ginkgo was the cause. Based on laboratory and human research, ginkgo may decrease blood pressure, although there is one report of ginkgo possibly raising blood pressure in a person taking a thiazide diuretic ("water pill"). Based on theory, high concentrations of ginkgo may reduce male and female fertility. Contamination with the drug colchicine has been found in commercial preparations of *Ginkgo biloba*.

Ginkgo may affect the outcome of electroconvulsive therapy (ECT). Adverse effects on the eyes have also been reported.

Pregnancy and Breastfeeding

Use of ginkgo is not recommended during pregnancy and breastfeeding due to lack of reliable scientific study in this area. The risk of bleeding associated with ginkgo may be dangerous during pregnancy.

Interactions [Return to top](#)

Most herbs and supplements have not been thoroughly tested for interactions with other herbs, supplements, drugs, or foods. The interactions listed below are based on reports in scientific publications, laboratory experiments, or traditional use. You should always read product labels. If you have a medical condition, or are taking other drugs, herbs, or supplements, you should speak with a qualified healthcare provider before starting a new therapy.

Interactions with Drugs

Overall, controlled trials of ginkgo report few adverse effects and good tolerance, with rates of complications similar to placebo. However, use of ginkgo with drugs that may cause bleeding may further increase the risk of bleeding, based on multiple case reports of spontaneous bleeding in patients using ginkgo alone, with warfarin (Coumadin®), or with aspirin. One case report documents a possible increase in bleeding risk with ticlopidine (Ticlid®) and ginkgo. Examples of drugs that may increase the risk of bleeding include

ClinicalTrials.gov

(<http://clinicaltrials.gov/ct2/show/NCT00010803?term=dekosky&rank=1>)

Ginkgo Biloba Prevention Trial in Older Individuals

This study is ongoing, but not recruiting participants.

Sponsors and Collaborators:	National Center for Complementary and Alternative Medicine (NCCAM)
	Office of Dietary Supplements (ODS)
	National Institute of Neurological Disorders and Stroke (NINDS)
	National Institute on Aging (NIA)
Information provided by:	National Heart, Lung, and Blood Institute (NHLBI)
ClinicalTrials.gov Identifier:	NCT00010803

► Purpose

This study will determine the effect of 240mg/day Ginkgo biloba in decreasing the incidence of dementia and specifically Alzheimer's disease (AD), slowing cognitive decline and functional disability, reducing incidence of cardiovascular disease, and decreasing total mortality.

<u>Condition</u>	<u>Intervention</u>	<u>Phase</u>
Dementia Alzheimer's Disease	Drug: Ginkgo biloba	Phase III

[Genetics Home Reference](#) related topics: [Alzheimer disease](#)

[MedlinePlus](#) related topics: [Alzheimer's Disease](#) [Dementia](#)



This has link to MedlinePlus's alzheimer's disease and dementia (but not to ginkgo biloba)

ClinicalTrials.gov

► More Information

[Click here to learn more about The Ginkgo Evaluation of Memory Study](#) 

Publications:

[Kleijnen J, Knipschild P. Ginkgo biloba for cerebral insufficiency. Br J Clin Pharmacol. 1992 Oct;34\(4\):352-8. Review.](#)

[Hopfenmüller W. \[Evidence for a therapeutic effect of Ginkgo biloba special extract. Meta-analysis of 11 clinical studies in patients with cerebrovascular insufficiency in old age\] Arzneimittelforschung. 1994 Sep;44\(9\):1005-13. German.](#)

[Le Bars PL, Katz MM, Berman N, Itil TM, Freedman AM, Schatzberg AF. A placebo-controlled, double-blind, randomized trial of an extract of Ginkgo biloba for dementia. North American EGB Study Group. JAMA. 1997 Oct 22-29;278\(16\):1327-32.](#)

Publications indexed to this study:

[DeKosky ST, Williamson JD, Fitzpatrick AL, Kronmal RA, Ives DG, Saxton JA, Lopez OL, Burke G, Carlson MC, Fried LP, Kuller LH, Robbins JA, Tracy RP, Woolard NF, Dunn L, Snitz BE, Nahin RL, Furberg CD; Ginkgo Evaluation of Memory \(GEM\) Study Investigators. Ginkgo biloba for prevention of dementia: a randomized controlled trial. JAMA. 2008 Nov 19;300\(19\):2253-62.](#)

Responsible Party: University of Pittsburgh/University of Virginia (Steven T. DeKosky MD)
Study ID Numbers: U01 AT000162-01M, 1 U01 AT000162-01
Study First Received: February 2, 2001
Last Updated: September 24, 2008
ClinicalTrials.gov Identifier: [NCT00010803](#) [\[history\]](#)
Health Authority: United States: Food and Drug Administration

Study placed in the following topic categories:

Delirium, Dementia, Amnestic, Cognitive Disorders
Mental Disorders
Alzheimer Disease

Brain Diseases
Dementia
Cognition Disorders

This study was published in a PubMed article.

PubMed

(<http://www.ncbi.nlm.nih.gov/pubmed/19017911?dopt=Abstract>)

- JAMA. 2008 Dec 17;300(23):2730.

Comment in:

- [JAMA. 2008 Nov 19;300\(19\):2306-8.](#)

Ginkgo biloba for prevention of dementia: a randomized controlled trial.

[DeKosky ST](#), [Williamson JD](#), [Fitzpatrick AL](#), [Kronmal RA](#), [Ives DG](#), [Saxton JA](#), [Lopez OL](#), [Burke G](#), [Carlson MC](#), [Fried LP](#), [Kuller LH](#), [Robbins JA](#), [Tracy RP](#), [Woolard NF](#), [Dunn L](#), [Snitz BE](#), [Nahin RL](#), [Furberg CD](#); [Ginkgo Evaluation of Memory \(GEM\) Study Investigators](#).

► [Collaborators \(53\)](#)

University of Pittsburgh, Pittsburgh, Pennsylvania, USA. dekosky@virginia.edu

CONTEXT: Ginkgo biloba is widely used for its potential effects on memory and cognition. To date, adequately powered clinical trials testing the effect of G. biloba on dementia incidence are lacking. OBJECTIVE: To determine effectiveness of G. biloba vs placebo in reducing the incidence of all-cause dementia and Alzheimer disease (AD) in elderly individuals with normal cognition and those with mild cognitive impairment (MCI). DESIGN, SETTING, AND PARTICIPANTS: Randomized, double-blind, placebo-controlled clinical trial conducted in 5 academic medical centers in the United States between 2000 and 2008 with a median follow-up of 6.1 years. Three thousand sixty-nine community volunteers aged 75 years or older with normal cognition (n = 2587) or MCI (n = 482) at study entry were assessed every 6 months for incident dementia. INTERVENTION: Twice-daily dose of 120-mg extract of G. biloba (n = 1545) or placebo (n = 1524). MAIN OUTCOME MEASURES: Incident dementia and AD determined by expert panel consensus. RESULTS: Five hundred twenty-three individuals developed dementia (246 receiving placebo and 277 receiving G. biloba) with 92% of the dementia cases classified as possible or probable AD, or AD with evidence of vascular disease of the brain. Rates of dropout and loss to follow-up were low (6.3%), and the adverse effect profiles were similar for both groups. The overall dementia rate was 3.3 per 100 person-years in participants assigned to G. biloba and 2.9 per 100 person-years in the placebo group. The hazard ratio (HR) for G. biloba compared with placebo for all-cause dementia was 1.12 (95% confidence interval [CI], 0.94-1.33; P = .21) and for AD, 1.16 (95% CI, 0.97-1.39; P = .11). G. biloba also had no effect on the rate of progression to dementia in participants with MCI (HR, 1.13; 95% CI, 0.85-1.50; P = .39). CONCLUSIONS: In this study, G. biloba at 120 mg twice a day was not effective in reducing either the overall incidence rate of dementia or AD incidence in elderly individuals with normal cognition or those with MCI. Trial Registration clinicaltrials.gov Identifier: NCT00010803.

USA Today

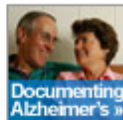
(http://www.usatoday.com/news/health/2008-11-18-ginkgo-biloba-alzheimers_N.htm)

Ginkgo biloba doesn't block Alzheimer's

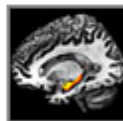
Updated 11/19/2008 12:25 PM | Comments [32](#) | Recommend [19](#) | E-mail | Save | Print | Reprints & Permissions | [RSS](#)

COPING WITH ALZHEIMER'S

▪ **Home base:** The basics and latest news



▪ **Graphic:** The science behind the disease



▪ **Follow their journey:** Bob Blackwell blogs 'Living with Alzheimer's' | A family confronts diagnosis

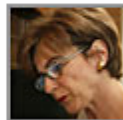


▪ **Minorities:** An African-American church's fight against a higher rate of incidence



▪ **Forum:** Do you puzzle for brain fitness?

▪ **Changes:** 'Early onset' cases rising | Patients up 4x by 2050



More [▼](#)

By **Mary Brophy Marcus**, USA TODAY

Hopes have been dashed once and for all that the dietary supplement ginkgo biloba can protect against age-related dementia and the memory-destroying disease Alzheimer's, according to a large government-funded study out today.

In the largest clinical trial ever to evaluate the impact of ginkgo biloba supplements on the development of dementia, the results have come up flat, says study author Steven DeKosky, vice president and dean of the University of Virginia School of Medicine. DeKosky's research appears in this week's *Journal of the American Medical Association*.

IN-DEPTH: [Video and what you need to know about the disease](#)
BETTER LIFE: [News briefs and studies on Alzheimer's](#)
PERSONAL BLOG: [Bob Blackwell is in the early stages](#)

"We're hugely disappointed. It could have saved hundreds of thousands of people from getting the disorder," DeKosky says.

For the study, DeKosky and colleagues tested the effectiveness of 120 milligrams (mg) of ginkgo twice daily vs. a placebo in diminishing dementia and Alzheimer's in more than 3,000 elderly volunteers. The participants were 75 or older and had normal cognitive health or only mild cognitive problems at the study's launch in 2000. They were followed up every six months for six years.

FIND MORE STORIES IN: [Medical Association](#) | [Duke University](#) | [Alzheimer's](#) | [Nutrition Business Journal](#) | [University of](#)



What's this?

This news article was based on a study published in JAMA (see the previous PubMed article)

Part 2: Faviki

Faviki (<http://www.faviki.com>)

- a social bookmarking tool that allows everybody to use Wikipedia terms as their tags
- tags are drawn from a pool of controlled terms
- support multilingual tagging
- a case study for the W3C Semantic Web Activity

The social bookmarking

Ginkgo biloba

PEOPLE:

TAGS: Ginkgo biloba;



Search

☐ OR ☒ AND

close all

RSS

This Month

keicheung

Ginkgo biloba and donepezil: a comparison in the t...[Eur J Neurol. 2006] - PubMed Result

4 days ago

Acetylcholine receptor 阿兹海默病 健忘症 失智症 Donepezil Ginkgo biloba 美国国家医学图书馆 [1 person]

keicheung

AlzheimersFINAL.pdf (application/pdf Object)

4 days ago

阿兹海默病 健忘症 Complementary 消费者 (经济) 失智症 Donepezil 药物 Evaluation Ginkgo biloba Memantine [1 person]

keicheung

Ginkgo biloba doesn't block Alzheimer's - USATODAY.com

4 days ago

This is a news article on a recently published large research/clinical study whose findings suggested that there was no significance between late-stage AD patients taking the ginkgo biloba supplement vs. those taking the placebo.

阿兹海默病 健忘症 Complementary 失智症 银杏 Ginkgo biloba [2 people]

jun.zhao

The Use of Herbal Medicine in Alzheimer's Disease--A Systematic Review -- Santos-Neto et al. 3 (4): 441 -- Evidence-based Complementary and

4 days ago

tag

Ginkgo biloba

9 bookmarks



Ginkgo, frequently misspelled as "Ginkgo", and also known as the Maidenhair Tree after Adiantum, is a unique species of tree with no close living relatives. The ginkgo is

The social bookmarking

Evidence-based Complementary and Alternative Medicine

Alternative medicine 阿茲海默病 Clinical research Ginkgo biloba Melissa (plant) Salvia [1 person]

jun.zhao

Ginkgo biloba doesn't block Alzheimer's - USATODAY.com

4 days ago

阿茲海默病 失智症 膳食補充劑 Disagree Ginkgo biloba 美國醫學協會期刊 Research paper [2 people]

jun.zhao

Ginkgo biloba for prevention of dementia: a random...[JAMA. 2008] - PubMed Result

4 days ago

阿茲海默病 失智症 Evaluation Ginkgo biloba 美國醫學協會期刊 安慰劑效應 [1 person]

CT jun.zhao

Ginkgo Biloba Prevention Trial in Older Individuals - Full Text View - ClinicalTrials.gov

4 days ago

Alternative medicine 阿茲海默病 失智症 Evaluation 银杏 Ginkgo biloba 安慰劑效應 [1 person]

jun.zhao

MedlinePlus Herbs and Supplements: Ginkgo (Ginkgo biloba L.)

4 days ago

阿茲海默病 银杏 Ginkgo biloba Premenstrual syndrome [1 person]

December

jun.zhao

Ginkgo biloba - Wikipedia encyclopedia

银杏 Side-effects [1 person]

after Adiantum, is a unique species of tree with no close living relatives. The ginkgo is classified in its own division, the Ginkgophyta, comprising the single class Ginkgoopsida, order Ginkgoales, family Ginkgoaceae, genus Ginkgo and is the only extant species within this group. It is one of the best-known examples of a living fossil, because Ginkgoales are not known from the fossil record after the Pliocene.

Topics:

- Medicinal plants
- Horticulture
- Living fossils
- Plants used in bonsai
- Gymnosperms
- Ornamental trees
- Trees of China

W Read more on Wikipedia

related tags

Complementary Disagree
Evaluation Research paper 健忘症
失智症 美國醫學協會期刊 膳食補充劑
银杏 阿茲海默病

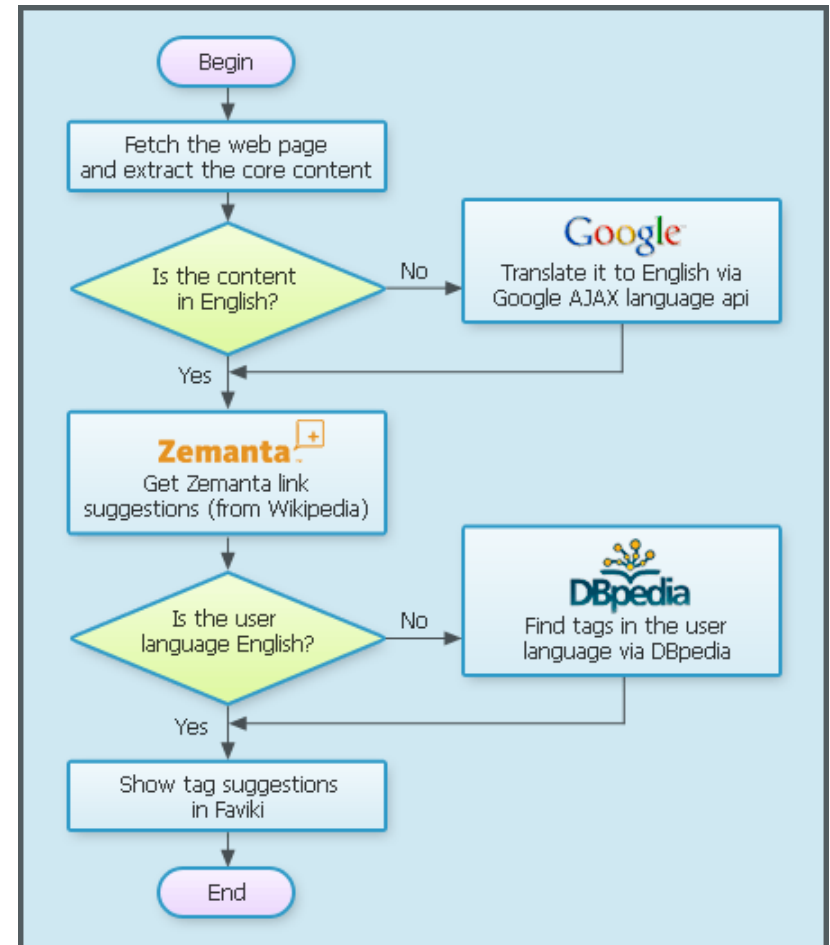
view as show sort by

cloud 10 alpha

Multilingual tagging

The multilingual tagging

- Users configure their native languages in their Faviki accounts
- When loading a web page, Faviki uses Google AJAX Language API to translate the page
- Uses Zemanta API to auto-suggest wikipedia terms for tagging
- Uses DBPedia to find tags in users' native language



Ref: <http://faviki.wordpress.com/>

A user's story

- If I register myself with Chinese being my native language
- Even if I used an English term to tag my page, e.g. Alzheimer's Disease, my tag cloud will only preserve the Chinese version of that term “阿兹海默病”, see <http://www.faviki.com/person/jun.zhao>
- Can be a problem when doing the query:
 - If I search for everything about “Ginkgo biloba”, pages **only** tagged with “银杏”, the Chinese name for Ginkgo biloba, **will not** be returned

Use tagging results

- Search tags



- HTTP request:
 - http://www.faviki.com/tag/Ginkgo_biloba
 - Only returns a HTML page
- Faviki API
 - Under testing phase: <http://faviki.wikia.com/wiki/API>
 - Save/Edit tags, but not querying tags
 - Wishlist: being able to retrieve/download tags in RDF format