



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

14 January 2010
EMA/HMPC/4252/2008
Committee on Herbal Medicinal Products (HMPC)

List of references supporting the assessment of *Urtica dioica* L.; *Urtica urens* L., folium

Final

The Agency acknowledges that copies of the underlying works used to produce this monograph were provided for research only with exclusion of any commercial purpose.

Anderson BE, Miller CJ, Adams DR. Stinging nettle dermatitis. *Am J Contact Dermat* 2003, 14(1):44-46, (abstract only).

Bertok L. A csalán összetétele és táplálóértéke [The composition and the nutritive value of Nettle]. *Magyar Allatorvosok Lapja* 1956, 11:16-166.

Benigni R et al. Piante Medicinali-Chimica, farmacologia e terapia. Vol 2. Invernì & della Beffa, Milano 1964, 1056-1063.

Blaschek W, Hänsel R, Keller K, Reichling J, Rimpler H, Schneider G, editors. Hagers Handbuch der Pharmazeutischen Praxis. Drogen L-Z. Vol 3. 5th ed. Springer-Verlag, Berlin 1998.

Blumenthal M, Busse WR, Goldberg A, Gruendwald J, Hall T, Riggins CW, Rister RS, Editors. The Complete German Commission E Monographs. American Botanical Council, Austin Texas 1998, 216.

Bombardelli E, Morazzoni P. *Urtica dioica* L. *Fitoterapia* 1997, 68:387-402.

Broer J, Behnke B. Immunosuppressant effect of IDS 30, a stinging nettle leaf extract, on myeloid dendritic cells in vitro. *J Rheumatol* 2002, 29(4):659-666.

Cetinus E, Kilinc M, Inanc F, Kurutas EB, Buzkan N. The role of *Urtica dioica* (*Urticaceae*) in the prevention of oxidative stress caused by tourniquet application in rats. *Tohoku J Exp Med* 2005, 205(3):215-221.

Chrubasik S, Enderlein W, Bauer R, Grabner W. Evidence for antirheumatic effectiveness of Herba Urticae dioicae in acute arthritis: A pilot study. *Phytomedicine* 1997, 4(2):105-108.

Chrubasik JE, Roufogalis BD, Wagner H, Chrubasik SA. A comprehensive review on nettle effect and efficacy profiles, Part I: Herba urticae. *Phytomedicine* 2007, 14(6):423-435.

Deutsches Arzneibuch 10 Ausgabe. Brennesselblätter Urticae folium. Wissenschaftliche Verlagsgesellschaft, Stuttgart 1991.



DAB 10-KOMMENTAR Wissenschaftliche Erläuterungen zum Deutschen Arzneibuch, 10 Ausgabe 1991 Band II/1 Monographien A-D.

Durak I, Biri H, Devrim E, Sözen S, Avci A. Aqueous extract of *Urtica dioica* makes significant inhibition on adenosine deaminase activity in prostate tissue from patients with prostate cancer. *Cancer Biol Ther* 2004, 3(9):855-857.

El Haouari M et al. Inhibition of rat platelet aggregation by *Urtica dioica* leaves extracts. *Phytother Res* 2006, 20(7):568-572. (abstract only).

ESCOP Monographs on the medicinal use of plant drugs. 1st ed. *Urticae folium/herba*, Nettle leaf/herb. European Scientific Cooperative on Phytotherapy, Exeter, UK Fascicule 4, 1997.

ESCOP Monographs 2nd ed. *Urticae folium/herba*- Nettle leaf/herb. European Scientific Cooperative on Phytotherapy, editor. Thieme, Stuttgart 2003, 521-527.

European Pharmacopoeia 5th ed. Nettle leaf- *Urticae folium*. Council of Europe 04/2005: 1897 corrected 5.6;4644-4645.

Farzami B, Ahmadvand D, Vardasbi S, Majin FJ, Khaghani SH. Induction of insulin secretion by a component of *Urtica dioica* leave extract in perfused Islets of Langerhans and its in vivo effects in normal and streptozotocin diabetic rats. *J Ethnopharmacol* 2003, 89(1):47-53.

Fijałek Z, Sołtyk K, Lozak A, Kominek A, Ostapczuk P. Determination of some micro- and macroelements in preparations made from peppermint and nettle leaves. *Pharmazie* 2003, 58(7):480-482. (abstract only).

Fintelmann V, Menßen GH, Siegers, C-P. Phytotherapy Manual. Hippokrates-Verlag GmbH, Stuttgart 1989.

Galelli A, Delcourt M, Wagner MC, Peumans W, Truffa-Bachi P. Selective expansion followed by profound deletion of mature V beta 8.3+ T cells in vivo after exposure to the superantigenic lectin *Urtica dioica* agglutinin. *J Immunol* 1995, 154(6):2600-2611. (abstract only).

Gözüm S, Tezel A, Koc M. Complementary alternative treatments used by patients with cancer in eastern Turkey. *Cancer Nurs* 2003, 26(3):230-236. (abstract only).

Gözüm S, Arikan D, Büyükcavci M. Complementary and alternative medicine use in pediatric oncology patients in eastern Turkey. *Cancer Nurs* 2007, 30(1):38-44. (abstract only).

Guil-Guerrero JL, Reboloso-Fuentes MM, Torija Isasa ME. Fatty acids and carotenoids from Stinging Nettle (*Urtica dioica* L.). *Journal of Food Composition and Analysis* 2003, 16:111-119.

Gul N, Ahmed SA, Smith LA. Inhibition of the protease activity of the light chain of type A botulinum neurotoxin by aqueous extract from stinging nettle (*Urtica dioica*) leaf. *Basic Clin Pharmacol Toxicol* 2004, 95(5):215-219. (abstract only).

Hansen C. Brennesselblätter- Extract wirksam bei Arthroseschmerzen. Aktuelle Ergebnisse einer multizentrischen Anwendungsbeobachtung mit Rheuma-Hek. *Der Allgemeinarzt* 1996, 6:654-657.

Háznagy-Radnai E, Szendrei K. A csalánról-gyógyszerészeknek II. [About Nettle – for pharmacist Part II.]. *Gyógyszerészet* 2006, 50:169-173; 179-181.

Herbal Gram: The Journal of the American Botanical Council. Available at: <http://www.herbalgram.org/iherb/expandedcommission/he092.a>.

Klingelhofer S, Obertreis B, Quast S, Behnke B. Antirheumatic effect of IDS 23, a stinging nettle leaf extract, on in vitro expression of T helper cytokines. *J Rheumatol* 1999, 26(12):2517-2522.

Konrad A, Mähler M, Arni S, Flogerzi B, Klingelhöfer S, Seibold F. Ameliorative effect of IDS 30, a stinging nettle leaf extract, on chronic colitis. *Int J Colorectal Dis* 2005, 20(1):9-17.

Kültür S. Medicinal plants used in Kirklareli Province (Turkey). *J Ethnopharmacol* 2007, 111:341-364.

- Lozak A, Sołtyk K, Ostapczuk P, Fijałek Z. Determination of selected trace elements in herbs and their infusions. *Sci Total Environ* 2002, 289:33-40.
- Lutomsky J, Speichert H. Die Brennessel in Heilkunde und Ernährung. [Nettle in therapy and in nutrition]. *Pharm unserer Zeit* 1983, 12:181-186.
- MDidea Exporting Division: Research update: Nettle and its constituents. Available at: <http://www.mdidea.com/products/new/new009research.html>. Accessed 02/01/2008.
- Notten MJ, Oosthoek AJ, Rozema J, Aerts R. Heavy metal pollution affects consumption and reproduction of the landsnail *Cepaea nemoralis* fed on naturally polluted *Urtica dioica* leaves. *Ecotoxicology* 2006, 15(3):295-304.
- Obertreis B, Giller K, Teucher T, Behnke B, Schmitz H. Antiphlogistische Effekte von Extraktum *Urticae dioicae foliorum* im Vergleich zu Kaffeoyläpfelensäure. *Arzneim-Forsch/Drug Res* 1996a, 46:52-56.
- Obertreis B, Ruttkowski T, Teucher T, Behnke B, Schmitz H. Ex-vivo in-vitro inhibition of lipopolysaccharide stimulated tumor necrosis factor- α and interleukin- 1β secretion in human whole blood by Extraktum *Urticae dioicae foliorum*. *Arzneim-Forsch/Drug Res* 1996b, 46:389-394.
- Otoom SA, Al-safi SA, Kererm ZK, Alkofahi A. The use of medicinal herbs by diabetic Jordanian patients. *J Herb Pharmacother* 2006, 6(2):31-41. (abstract only).
- Ozen, T, Korkmaz H. Modulatory effect of *Urtica dioica* L. (Urticaceae) leaf extract on biotransformation enzyme systems, antioxidant enzymes, lactate dehydrogenase and lipid peroxidation in mice. *Phytomedicine* 2003, 10(5):405-415.
- Ramm S, Hansen C. Brennesselblätter- Extract bei rheumatischen Beschwerden. Aktuelle Ergebnisse einer multizentrischen Anwendungsbeobachtung. *Deutsche Apotheker Zeitung* 1995, 135(39):3-8.
- Ramm S, Hansen C. Multizentrische Anwendungsbeobachtungen mit Rheuma-Hek Brennesselblätter-Extrakt bei Arthrose und rheumatoider Arthritis. *Therapiewoche* 1996, 28:3-6.
- Ramm S, Hansen C. Arthrose: Brennesselblätter-Extrakt IDS 23 spart NSAR ein. *Jatros Ortho* 1997(1), 12:29-33.
- Ramm S, Hansen C. Brennesselblätter-Extrakt: Wirksamkeit und Verträglichkeit bei Arthrose and rheumatoider Arthritis. In: Chrubasik S, Wink M, editors. Rheumatherapie mit Phytopharmaka. Hippokrates-Verlag, Stuttgart 1997, 97-106.
- Randall C, Meethan K, Randall H, Dobbs F. Nettle sting of *Urtica dioica* for joint pain- an exploratory study of this complementary therapy. *Complement Ther Med* 1999, 7(3):126-131. (abstract only).
- Randall C, Randall H, Dobbs F, Hutton C, Sanders H. Randomized controlled trial of nettle sting for treatment of base-of-thumb pain. *J R Soc Med* 2000, 93(6):305-309.
- Riehemann K, Behnke B, Schulze-Osthoff K. Plant extracts from stinging nettle (*Urtica dioica*), an antirheumatic remedy, inhibit the proinflammatory transcription factor NF- κ B. *FEBS Letter* 1999, 442(1):89-94.
- Schoening U. 1996 Strathmann data on file. In Julia E. Chrubasik, Basil D. Roufogalis, Hildebert Wagner and Sigrun A. Chrubasik: A comprehensive review on nettle effect and efficacy profiles, Part I: Herba urticae. *Phytomedicine* 2007, 14:423-435.
- Schulze-Tanzil G, de SP, Behnke B, Klingelhofer S, Scheid A, Shakibaei M. Effects of the antirheumatic remedy hox alpha- a new stinging nettle leaf extract- on matrix metalloproteinases in human chondrocytes in vitro. *Histol Histopathol* 2002, 17:477-485. (abstract only).
- Setty AR, Sigal LH. Herbal Medications Commonly Used in the Practice of Rheumatology: Mechanism of Action, Efficacy, and Side Effects. *Seminars in Arthritis and Rheumatism* 2005, 34:773-784.
- Sommer R-G, Sinner B. IDS 23 in der Rheumatherapie. Kennen Sie den neuen Zytokin-antagonisten? *Therapiewoche* 1996, 46:44-49.

Szendrei K, Háznagy-Radnai E. A csalánról – gyógyszerészeknek I. rész [About Nettle – for pharmacist Part I.]. *Gyógyszerészet* 2006, 50:89-94.

Szentmihályi K, Kéry Á, Then M, Lakatos B, Sándor Z, Vinkler P. Potassium-Sodium ratio for the Characterization of Medicinal Plants Extracts with Diuretic Activity. *Phytother Res* 1998, 12:163-166.

Taskila K, Saarinen JV, Harvima IT, Harvima RJ. Histamine and LTC₄ in stinging nettle-induced urticaria. *Allergy* 2000, 55(7):680-681.

Teucher T, Obertreis B, Ruttkowski T, Schmitz H. Zytokinsekretion im Vollblut gesunder Probanden nach oraler Einnahme eines *Urtica dioica* L.-Blatterextractes [Cytokine secretion in whole blood of healthy subjects following oral administration of *Urtica dioica* L. plant extract]. *Arzneimittelforschung* 1996, 46(9):906-910.

Toldy A et al.. The effect of exercise and nettle supplementation on oxidative stress markers in the rat brain. *Brain Res Bull* 2005, 65:487-493.

Tropical Plant Database (Rain Tree Nutrition), database File for: Nettle (*Urtica dioica*). Available at: <http://www.rain-tree.com/nettles.htm>. Accessed 27/12/2007.

Turker AU, Usta C. Biological screening of some Turkish medicinal plant extracts for antimicrobial and toxicity activities. *Nat Prod Res* 2008, 22(2):136-146. (abstract only).

Wichtl M. Herbal Drugs and Phytopharmaceuticals. 3rd ed. Medpharm Scientific Publishers GmbH, Stuttgart 2004.

Wolf F. Gonarthrose, Brennesselblätter-Extrakt IDS 23 in der Langzeitandwendung. *Der Kassenarzt Deutsches Ärztemagazin* 1998, 44:52-54.

Wolf F, Gulbin J, Mielke F. Aktivierter Arthrose Brennesselblätter-Extrakt mit Leitsubstanz HOTrE (SRTAT) hemmt Tumor-Nekrose-Faktor- α . *Der Kassenarzt Deutsches Ärztemagazin* 2001, 16:42-47.