### **Upcoming Events**

# **USP Stakeholder Forum**

Dietary Supplements & Herbal Medicines September 14-15, 2021 | 10:00am - 1:00pm ET Virtual Meeting



**USP Dietary Supplements & Herbal Medicines Stakeholder Forum** September 14-15, 2021

Stakeholder input is essential to developing USP's quality standards, maintaining public trust and protecting patient health. Join us on September 14 and 15 for a dietary Supplements & Herbal Medicines Stakeholder Forum. Organizations, manufacturers, service providers, and others are encouraged to attend and share their perspectives on priority standards and dietary supplements quality issues. Click here to learn more or register for this free, virtual event.

The 6th International qNMR Summit October 5-7, 2021

Bzhelyansky.

A definitive international event concerning every aspect of qNMR theory and practice, its compendial and industrial implementation, and future development perspectives. Now, virtual and free! Please register here, and alert your colleagues. For further details, please consult **qnmrsummit.com**, or send an email to **Anton** 

## **Dietary Supplements Compendium**



The Dietary Supplements Compendium (DSC) contains over 100 Admission Evaluation summaries in the "Supplementary Information" section for dietary ingredients that have been admitted for monograph development. Admission Evaluations are comprehensive literature reviews that illustrate a dietary ingredient's known public health and safety profile, including the ingredient's chemistry, typical intake levels, potential adulterants or contaminants, clinical trial and toxicological data, and potential adverse interactions. This information is compiled by USP to help determine whether a dietary ingredient should be admitted for monograph development and potential publication in USP compendia.

subscribers, each Admission Evaluation is paired with at least one corresponding USP monograph or family of botanical monographs, some of which are in development. The 2021 edition of the DSC Online went live in June 2021. New monographs, general chapters, admission evaluations, chromatograms, chemical structures and photomicrographs have been added to further enhance

providing a thorough review of common use, identification, and potential risks. Exclusively available to DSC

DSC's Admission Evaluations can serve as a unique resource for health care practitioners and retailers,

use of dietary ingredients. <u>Click here for more information and to subscribe</u> to the Dietary Supplements Compendium for only \$150 per

this comprehensive resource for in-depth background, specifications and assays to help support quality and safe

**USP** in the News

**Publications in Peer-reviewed Journals** 

### **Open Access:**

#### United States Pharmacopeia (USP) Safety Review of *Gamma*-Aminobutyric Acid (GABA) Hellen A. Oketch-Rabah, Emily F. Madden, Amy L. Roe and Joseph M Betz

Nutrients, **2021**, 12(8), 2742

Chrysanthemum morifolium Flower and Chrysanthemum indicum Flower Jiao He, Qian Zhang, Cuiying Ma, Gabriel I. Giancaspro, Kaishun Bi and Qing Li.

Published on 22 April 2021 <u>View this publication in Frontiers in Pharmacology</u>

<u>View this publication in Nutrients here</u>. An Effective Workflow for Differentiating the Same Genus Herbs of

M. L. Jane Weitzel, Christina S. Vegge, Marco Pane, Virginia S. Goldman, Binu Koshy, Cisse Hedegaard Porsby, Pierre Burguière and Jean L. Schoeni\*

Published on 12 July 2021

Improving and Comparing Probiotic Plate Count Methods by Analytical Procedure Lifecycle Management

View this publication in Frontiers in Microbiology

### Essential Terminology Connects NMR and qNMR Spectroscopy to Its Theoretical Foundation

Setinbeck, Dan Sørensen, Damien Jeannerat, Daneel Ferreira, David Lankin, James McAlpine, Jean-Nicholas Dumez, Jonathan Bisson, Krish Krishnamurty, Matthias Niemitz, Michael Nelson, Patrick Giraudeau, Samuli-Petrus Korhonen, Stefan Kuhn, Toru Miura and Lucy Botros

Guido Pauli, G. Joseph Ray, Anton Bzhelyansky, Birgit Jaki, Charlotte Corbett, Christina Szabo, Christoph

Preprint View this publication in Analytical Chemistry

Safety of Cranberry: Evaluation of Evidence of Kidney Stone Formation and Botanical Drug-Interactions

Emily Madden, Caleb McLachlan, Hellen Oketch-Rabah, Angela I. Calderón Preprint

View this publication in Planta Medica

**Be Part of the Standards Development Process!** 

#### Help shape standards specifications and test methods by sponsoring monographs or General Chapters and their supporting Reference

Standards. USP doesn't charge fees to develop monographs – all you need is a willingness to collaborate with us to help safeguard the supply chain for supplements and ingredients. USP standards for dietary ingredients and dietary supplements are a resource for public specifications and scientifically valid methods that can help in GMP compliance and in safeguarding the supply chain for supplements and ingredients. USP is seeking donations for the following monographs:



**Botanical Dietary Supplement Ingredients** 

Cuminum cyminum

- Acai palm berry (Euterpe oleracea Mart.)
  - Dandelion Root (*Taraxacum officinale* F.H.Wigg.) Hops strobile (Humulus lupulus L.)
  - Lavender flower (Lavandula angustifolia mill.) • Lemon Balm leaf (Melissa officinalis L.) Maqui berry (Aristotelia chilensis (Molina) Stuntz)
  - Mullein (Verbascum Thapsus L.) • Passionflower herb (Passiflora incarnata L.) Moringa Leaf (Moringa oleifera L.)
  - Sage leaf (Salvia officinalis L.) • Thyme leaf (*Thymus vulgaris* L. or *Thymus zygis* L.) • Skullcap aerial parts (Scutellaria lateriflora L.)
- Yarrow aerial parts (Achillea millefolium L.) **Non-Botanical Dietary Supplement Ingredients**
- Glucuronolactone Histidine
  - Lactobacillus plantarum 299v Levocarnitine Tartrate Lutein esters
  - L-Ornithine Lysine Pantethine
  - Phosphatidylserine Salmon Oil (wild and farmed) Soy Protein
  - Zeaxanthin preparation Mineral Ascorbates Mineral Bisglycinates

Menaquinone 4 tablets and capsules

- **Non-Botanical Dosage Forms (Finished Dietary Supplements)**  Cyanocobalamin capsules • Glucosamine, Chondroitin Sulfate Sodium capsules Magnesium Citrate capsules
- Pyrroloquinoline Quinone Disodium Capsules (or other dosage forms) Methylcobalamin orally disintegrating tablets Omega-3-Triglyceride chewable gels (gummies) Plant Sterol tablets
- Plant Sterols and Stanols Ester Capsules • S-Adenosyl-L-Methionine Disulfate Tosylate tablets (or other dosage forms) • S-Adenosyl-L-Methionine Disulfate 1,4-Butanedisulfonate tablets (or other dosage forms)

• Omega-3-Acid Triglycerides with Vitamin D capsules

**USP Admission Evaluations of Articles Prior to Monograph Development** The USP Dietary Supplements Admission Evaluations and Labeling Expert Committee (DSAEL EC) held a

For more information on how to donate and a complete list of requested monographs, please visit: <u>USP Dietary</u> Supplements and Herbal Medicines Standards Development Process or contact DietarySciStaff@USP.org.

#### virtual working meeting on Monday, July 12, 2021. Members deliberated on and admitted Lactiplantibacillus plantarum Lp-115, Ligilactobacillus salivarius Ls-33, Streptococcus thermophilus St-21, and Bacillus coagulans Unique IS2 for monograph development. The DSAEL EC will meet via WebEx in November 2021 (exact date to be determined), to deliberate on Bitter Orange Young Fruit, Neem Leaf, and Bromelain. Comments on the safety

Madden, Ph.D., DABT, **Nomenclature of Dietary Supplements** The Dietary Supplements and Herbal Medicines Nomenclature Joint Subcommittee (DSHM Nom JSC) met in March, May and July 2021 and recommended the following monograph titles to the USP Nomenclature and Labeling Expert Committee for approval:

of these ingredients are welcome. For more information, please contact Hellen Oketch-Rabah, Ph.D., or Emily

### American Elder Berry Bergamot Orange Fruit Dry Extract

 Blood Orange Fruit Dry Extract Bitter Orange Young Fruit

- Bitter Orange Immature Fruit • Bitter Orange Immature Fruit Powder
- Black Cumin Seed Thymoquinone Oil Capsules Coptis chinensis Rhizome Aqueous Dry Extract Cumin Fruit Cumin Fruit Powder

Bitter Orange Young Fruit Powder

- Cumin Fruit Dry Extract European Elder Berry Pacific Salmon Oil Pea Protein
- Red Yeast Rice Powder Streptococcus salivarius DSHM Nom JSC revised the Guideline for Assigning Titles to USP Dietary Supplement Monographs available here. For more information on dietary supplements nomenclature, please contact Hellen Oketch-

Phosphatidylserine

Rabah, Ph.D.

### **Products & Services**

**New Dietary Supplements Reference Standards** 

Herbal Medicines/ Botanical **Dietary Supplements** 

- Chrysanthemum indicum Flower Dry Extract
- Chrysanthemum x morifolium Flower Dry
- Isochlorogenic Acid A • <u>Linarin</u>

**Extract** 

Non-Botanicals

(Coming soon) Choline Related Compound A

Choline Citrate

#### N-Acetylornithine Reference Standards in development:

- **Botanicals**
- Aegle marmelos Fruit Dry Extract
- Angelica sinensis Root Powder Ankaflavin
- Azadirachta indica Leaf

• Azadirachta indica Seed

- Dry Extract • Broccoli Seed Dry Extract • Black Cumin Seed
- Thymoquinone Oil
- Carvacrol Cranberry Fruit Juice Dry
- Extract
- 4-cymene Ginger Rhizome Carbon
- Diozide Soft Extract Glucoraphanin
- Rhizome Powder • Chrysanthemum indicum

• Ligusticum chuanxiong

- Flower Dry Extract • Chrysanthemum x morifolium Flower Dry
- Extract Cranberry Fruit Juice Dry Extract
- 4-cymene • Ginger Rhizome Carbon
- Dioxide Soft Extract Glucoraphanin
- Monascin Pomegranate Fruit Dry Extract
- Procyanidin A2 Punicalagin
- Red Yeast Dry Extract
- Senkyunolide A
- Z-Ligustilide
- Cimifugin
- 5-O-Methylvisamminoside
- Saposhnikovia divaricata Root Dry Extract Aloeverose
- Aloin B Non-Botanicals
  - Diosmetin Hydroxocobalamin
  - Chloride • L-Ornithine Hydrochloride
  - Lysine Naringenin • Palm Oil Tocotrienols and
- Standards Open for Public Comment until Sep. 30, 2021

**Monographs** 

Tocopherols

Phosphatidylserine

The standards below were published in PF 47 (4) for public comment on July 1, 2021. USP will accept public feedback until Sep. 30, 2021. To comment,

please visit **Pharmacopeial Forum**. Revised Monographs/General <u>Chapters</u> Calcium Ascorbate

**Standards Open for Public** Comment until Nov. 30, 2021 The standards below were published in PF 47 (5) on

Menthol

Sept. 1, 2021 and public feedback will be accepted until Nov. 30, 2021. To comment, please visit Pharmacopeial Forum.

New Monographs/General

**Chapters** 

• Bitter Orange Young Fruit • Bitter Orange Young Fruit Powder

• GC <2800> Multi-**Ingredient Dietary** Supplement Products -Development of Quality

**Chapters**  Curcuminoids Capsules Curcuminoids Tablets

Revised Monographs/General

• Bifidobacterium animalis subsp. *lactis* Standards to be published in PF

47 (6) The standards below will be

published in PF 47 (6) for public comment on Nov. 1, 2021. USP will accept public feedback until Jan. 31, 2022. To comment, please visit **Pharmacopeial Forum** 

New Monographs/General **Chapters** Bromelain

• GC <1567> Pyrrolizidine Alkaloids as Contaminants Revised Monographs/General

Chapters Feverfew

 Feverfew leaf Sodium Ascorbate

- New Monographs under **Development**
- Black Cumin Seed Oil • Black Cumin Seed Oil Thymoquinone Capsules • Cinnamomum cassia Bark
- Powder • Cinnamomum verum Bark • Cinnamomum verum Bark

• Cinnamomum cassia Bark

- Powder • Coptis chinensis Rhizome Aqueous Dry Extract
- Cranberry Fruit Powder • Cranberry Fruit Gummies Elder Berry Juice
- (American and European) Elder Berry Juice Concentrate (American
- and European) Elder Berry Dry Juice (American and European)
- Elder Berry Liquid Extract (American and European)
- Elder Berry Aqueous Dry Extract (American and European)
- Elder Berry Fruit Powder (American and European)
- Feverfew Leaf Dry Extract • Gastrodia rhizome Gastrodia rhizome Powder
- Gastrodia rhizome Dry Extract • Green Tea Leaf Dry
- Extract • Indian Elecampane Root
- Indian Elecampane Root
- Indian Elecampane Root Dry Extract Maca root powder
- Maca root gelatinized powder Maca root extract
- Maqui berry • Maqui berry powder Maqui berry dry juice

Mate leaf

 Mate leaf dry extract Moring Leaf Moringa Leaf Dry Extract • Perilla Fruit

• Perilla Fruit Powder Purple

corn dry extract Red Clover Tablets Red Yeast Dry Extract Red Yeast Rice Powder Shatavari Root

Shatavari Root Powder

- Non-Botanicals Apigenin beta-Hydroxy-beta-
- Bacillus subtilis Bromelain • Calcium beta-hydroxybeta-methylbutyrate (Ca-

HMB)

methylbutyric acid (HMB)

- GABA Hematococcus pluvialis powder Hydrolyzed Collagen
- Inositol Niacinate Levocarnitine Tartrate Lutein Esters Lysine

Hydrolyzed Keratin

 Mineral Ascorbates Mineral Bisglycinates Native Collagen Oil-soluble Vitamins

Preparation Phosphatidylserine

 Pea Protein Soy Protein Streptococcus

- Phytosterol Esters Plant sterols Rice protein Pacific salmon oil
- thermophilus New General Chapters Under <u>Development</u>

<582> Water-Soluble

Vitamins Assay by Liquid

Chromatography—Mass Spectrometry <567> Analysis of Contaminant Pyrrolizidine Alkaloids

• <2760> Impurities in

Dietary Ingredients and

#### Dietary supplements Find a USP Reference Standard Suggest a Reference Standard

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