Traditional knowledge documentation: the Traditional Knowledge Digital Library

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TKDL

OBJECTIVES AND TARGET AUDIENCE

- Prevent Misappropriation of Indian Traditional Knowledge
  - Break Format & Language barriers
- For International Patent Offices only
- Multilingual (French, German, Japanese, English & Spanish)
- Creating new Intellectual Property for promoting Access to Medicines (Since 2008)
PROTECTING TRADITIONAL KNOWLEDGE

India
- Turmeric
- Neem
- Basmati

TKDL – TKRC - IPC
<table>
<thead>
<tr>
<th>Study Date</th>
<th>Study Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2000</td>
<td>4896</td>
</tr>
<tr>
<td>March 2003</td>
<td>15000</td>
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<tr>
<td>December 2005</td>
<td>35587</td>
</tr>
<tr>
<td>December 2008</td>
<td>85000</td>
</tr>
<tr>
<td>Medicinal Plant Patents / Year</td>
<td>5000</td>
</tr>
<tr>
<td>Possible Patents concerning Indian Plants / Year</td>
<td>4000</td>
</tr>
<tr>
<td>Possible Patents on Indian system of Medicine on yearly basis</td>
<td>2000</td>
</tr>
<tr>
<td>Annual average Growth Rate between 2000-2008</td>
<td>200%</td>
</tr>
</tbody>
</table>
IPC & Medicinal Plants

A
Section
Human Necessities

Medical or Veterinary Science; Hygiene

Preparation for Medical, Dental or Toilet Purposes

Extracts of Animal, Plant or Micro-organisms

Materials from Plants
Section A – Ayurveda; Class 01 – Pharmaceutical Preparations
Sub-Class B – Based on Animals; Group 1/00 – Based on Animals & their Products; Sub-group 1/21 - Milk
IGC & TKDL

Enhancement in IPC subgroups on medicinal plant from 1 to 200 & linking TKRC (25000 subgroups) to IPC, Recognition of TK by IPC & contribution to Quality Patent Search.

Inclusion of 2 of CSIR Scientific Journals i.e. Indian Journal of Traditional Knowledge & Medicinal and Aromatic plants Abstracts

- Contribution in establishing standard WIPO/GRTKF/IC/4/14 on setting up of databases & registries on Traditional Knowledge & Biological Genetic Resources

- Awareness Building on TKDL
  - Presentation in plenary of IGC-2002 & 2004
  - Presentation in committee of Experts IPC-2001,2003
(१९८६) गुड़फ्याड़ि काठ:
(बौद्ध मंडू चिनो)
गुड़फ्याड़ि मंडू रास्रा पश्चिमपूर्व विस्तार।
बन्दर काश्मरीपूर्व बलामूल विकृतम्।
पाकाळे मसूरान्त गातजाया प्रयोजयेन।
### Key Attributes of TKDL

**Title of Traditional Knowledge**

**Guducyadi Kvatha(14)**

**Knowledge Known Since**

100 years

**TKRC CODE:**


**IPCCode:**

A61K35/78, A61K9/08, A61P31/12

**DETAILS OF PROCESS / FORMULATION:**

1. **Guducyadi Kvatha(14)** is a therapeutic single/compound formulation consisting of useful parts of following ingredient(s):

- Tinospora cordifolia (Guduci)
- Glycyrrhiza glabra (Yastimadhu, Klitaka (Substitute))
- Pluchea lanceolata (Rasna)
- Desmodium gangeticum (Salaparni)
- Uraria picta (Prasniparni)
- Solanum xanthocarpum (Kantakari, Laksamana (Substitute drugs) (Sveta))
- Solanum indicum (Brahti)
- Tribulus terrestris (Goksura)
- Pterocarpus santalinus (Rakta candana)
- Gmelina arborea (Gambhari)
- Sida cordifolia (Bala)
- Solanum xanthocarpum (Kantakari, Laksamana (Substitute drugs) (Sveta))

2. Therapeutic composition/formulation is mentioned below:
<table>
<thead>
<tr>
<th>No.</th>
<th>Plant Name</th>
<th>Part</th>
<th>Quantity</th>
<th>Part Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tinospora cordifolia (Guduci)</td>
<td>(Stem)</td>
<td>1</td>
<td>Part</td>
</tr>
<tr>
<td>2</td>
<td>Glycyrrhiza glabra (Yastimadhu, Klitaka (Substitute))</td>
<td>(Root)</td>
<td>1</td>
<td>Part</td>
</tr>
<tr>
<td>3</td>
<td>Pluchea lanceolata (Rasna)</td>
<td>(Leaf)</td>
<td>1</td>
<td>Part</td>
</tr>
<tr>
<td>4</td>
<td>Desmodium gangeticum (Salaparni)</td>
<td>(Root)</td>
<td>0.2</td>
<td>Part</td>
</tr>
<tr>
<td>5</td>
<td>Uaria picta (Prasniparni)</td>
<td>(Root)</td>
<td>0.2</td>
<td>Part</td>
</tr>
<tr>
<td>6</td>
<td>Solanum xanthocarpum (Kantakari, Laksamana (Substitute drugs) (Sveta))</td>
<td>(Root)</td>
<td>0.2</td>
<td>Part</td>
</tr>
<tr>
<td>7</td>
<td>Solanum indicum (Brahti)</td>
<td>(Root)</td>
<td>0.2</td>
<td>Part</td>
</tr>
<tr>
<td>8</td>
<td>Tribulus terrestris (Goksura)</td>
<td>(Root)</td>
<td>0.2</td>
<td>Part</td>
</tr>
<tr>
<td>9</td>
<td>Pterocarpus santalinus (Rakta candana)</td>
<td>(Heart Wood)</td>
<td>1</td>
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</tr>
<tr>
<td>10</td>
<td>Gmelina arborea (Gambhari)</td>
<td>(Fruit)</td>
<td>1</td>
<td>Part</td>
</tr>
<tr>
<td>11</td>
<td>Sida cordifolia (Bala)</td>
<td>(Root)</td>
<td>1</td>
<td>Part</td>
</tr>
<tr>
<td>12</td>
<td>Solanum xanthocarpum (Kantakari, Laksamana (Substitute drugs) (Sveta))</td>
<td>(Whole Plant)</td>
<td>1</td>
<td>Part</td>
</tr>
</tbody>
</table>
3. A composition as described above is formulated as (Decoction / Water Extract)(Kvatha)

4. Therapeutic composition mentioned above is prepared by Kvatha Curna/Kvatha: Drugs are cleaned and dried.

5. It is useful in the treatment of Small pox(Masurika)

LIST OF DOCUMENTS WITH DATE OF PUBLICATION(PRIOR ART):

Nagin Das Chagan lal
Saha

Bharat Bhaisjya Ratnakar, Gopi nath Bhisakratnen

pp 13
従来の知識資源のタイトル

Mañjištādikvāṭahā (Vr̥hat) (08)

TKDL のキーの属性

その後知られている知識

500 years


日本のプロセス/公式：

1. Me@jii⁴ hangkvētha (V' hat) (08) 次のような有用な構成成分を含む治療的化合物製剤アカネ・カルジフォリア（マンジスタ）。
カヤツリグサ（ムスタカ）、ホラレナ・アンチダイセンテリカ（クタジャ、インドライヴァ）、タイナスポラ・コルジフォリア（グドッチ）、モッコウ（クスタ）、ジンギヘル・オフィシネール（アルドラカ）、クレロデンドラム・セッラタム（バランギ）、ソレナ・ザントカルバ（カンタカリ、ラクサマナ（代用薬品）（スヴェタ）、アヤメガサ（ヴァシャ）、アザラシク・インジカ（ニンパ）、ウコン（ハリドラ）、メギ・アリステラ（ダルハリドラ）、カラスウリ・ダイオイカ（バトラ）、ウレン（カトゥキ）、コンズランゴ・テネシッシャ（ムラ）、エンベリア・ライブス（ヴィダンガ）、プロテオカルプス（ビジャカ（アサン））、セイロンマツリ（チタラ）、アスパラガス・レモササ（サヴァサ、メダマヘマ（代用薬品））、リンドウ・クッルーウ（トラヤマナ、トラヤンティ）、キンマ・リンガム（ピッパリ）、ホラレナ・アンチダイセンテリカ（クタジャ、インドライヴァ）、アデトダ・ワルカ（ヴァサ）、タカサブロウ・アルバ（ブリュングラジャ）、ヒマラヤギ・ヒマラヤスキ（デヴァダル）、シンサベロス・パレイラ（パタ）、アセンヤクノキ（カディラ）、シンタ（ラクタ・チャンドナ）、オベルクリナ・タルバタム（トリワルタ）、クララ・ヌルヴェラ（ヴァルナ）、センブリ・シライタ（キララティカ）、ソレィア・コリフィア（バキ鍼）、ナンバンサイカチ（アルグワダ）、ストラス・アスパル（サクホタカ）、センダン・アゼララ（マハニンバ、ナインリア？）、ボングミア・ヒンネタ（カラランジャ、ナクタマラ、ウドリバ）、トリカブト・ヘテロフィラム（アティワサ）、サラバナ・ヴェッティヴェロイデス（ハリベラ）、スイカ・コロシンス（インドラヴァルニ）、ヘミデスマス・インジカ（サリヴァ（ウトラ・サリヴァ）、フュマリア・バルヴィフラ（バルパタ・ペーダ）、ファゴンタ・クレティカ（ダウィヤサ）、テルミニア・チェブラ（ハリタ）、テルミニア・ベリッタ（ビッタカ）、エンブリカ・オフィシュナリス（アマルキー）

2. 治療的構成/製剤は以下の通り
1 アカネ・カルジフォリア（マンジスタ） (根)
2 カヤツリグサ（ムスタカ） (茎・塊茎)
3 ホラレナ・アンチダイセンテリカ（クタジャ、インドライヴァ） ( системаー )
4 タイナスポラ・コルジフォリア（グドッチ） (根)
5 モッコウ（クスタ） (根)
6 ジンギヘル・オフィシネール（アルドラカ） (根)
<table>
<thead>
<tr>
<th>Discipline</th>
<th>Current Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ayurvedic formulations</td>
<td>81,500</td>
</tr>
<tr>
<td>Unani formulations</td>
<td>1,09,500</td>
</tr>
<tr>
<td>Siddha formulations</td>
<td>12,200</td>
</tr>
</tbody>
</table>

TKDL ready to safeguard 2,03,200 medicinal formulations like Neem and Turmeric in Ayurveda, Unani and Siddha which are present in 30 million A4 size pages, at International Level
Cost/ Effectiveness of TKDL

- **TKDL Route**
  - No. of A4 Size page information in 5 international languages
  - Expenditure Incurred

- **Translation Route**
  - Skill needed, knowledge of Ayurveda/ Unani/ Siddha/ Sanskrit/ Persian/ Tamil/ German/English/French/Japanese/Spanish/ Modern medicine & Science
  - Incase above skill set was available, it would have costed 1.2 billion US $, a team of 5000 and time period of 60 years against the team of 100 and cost of 2.0 million US$
  - TKDL protects 0.2 million formulations based on Neem cases, cost of such protection would be astronomical(200 billion US$).
TKDL has made unparalleled Contributions to the international policy context of the patent system and it offers a valuable template for others

Dr. Francis Gurry
Director General
World Intellectual Property Organization, Geneva
Date 05-Jan-2009
Regional consultation on Development of Traditional Medicines in the South East Asia Region, Pyonyoung, DPR Korea, 22-24 June 2005

Recommendation No.5

WHO should develop a model framework on replicating Traditional Knowledge Digital Library (India) suitable for adapting to individual Country needs
The information, along with a photographic scan of the relative verse, is then uploaded to an online database and translated into English, French, German, Spanish, Japanese and Hindi. So far, some 140,000 treatments have been entered into the Traditional Knowledge Digital Library (TKDL), a $2 million project launched five years ago to provide a direct link to what is regarded in the patent world as prior knowledge. The first of its kind, the TKDL is serving as a
India adopts "yoga piracy" battle. By Soutik Biswas, BBC News, Delhi

http://news.bbc.co.uk/2/hi/south_asia/4506382.stml

In a quiet government office in the Indian capital, Delhi, some 100 doctors are hunched over computers poring over ancient medical texts and keying in information................People outside India are not aware of our immense traditional knowledge wealth VK Gupta, project director

The mammoth Indian encyclopaedia may finally give alternative medicine the shot in the arm it sorely needs

http://yaleglobal.yale.edu/displayarticle.php?rid=10

Eric Bellman

The Wall Street Journal, 19 December

India is taking a small step toward that goal by building a government database that catalog more than 100,000 traditional herbal medicines and thousands of plants and yoga positions. The database, in New Delhi at India's National Institute of Science Communication and Information Resources, also includes more than 30 million pages of ancient Indian texts translated into English, French, German, Spanish and Japanese. The institute plans to add traditional Indian food, architecture and farming methods - all in an effort to establish the provenance of India's natural and cultural property. "At least 150 experts have been working six days a week for the last three years on this," says V.K. Gupta, director of the institute. "Now we have a mechanism through which we can prevent piracy is becoming common, and we are moving to do something about it," he says.

We know of at least 1.5 billion yoga postures drawn from the Indian system, and these are practiced worldwide.

"No one should question yoga. "The importance of yoga is not debatable. But, until now, we could not understand it or communicate the art of yoga."

In an effort to protect Indian yoga, the government is creating a "yoga piracy" battle. By Soutik Biswas, BBC News, Delhi

http://news.bbc.co.uk/2/hi/south_asia/4506382.stml

In a quiet government office in the Indian capital, Delhi, some 100 doctors are hunched over computers poring over ancient medical texts and keying in information ...............People outside India are not aware of our immense traditional knowledge wealth VK Gupta, project director

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BUSINESS

Break with tradition

Traditional medicine has spent decades in the wings of pharmacology. Now India is pushing it to centre stage, as K.S. Jayaraman reports.

In brief

Vaccine venture
Swiss drugmaker Novartis has announced plans to build a $600 million, state-of-the-art production plant for flu vaccine in Holly Springs, North Carolina. The plant — more than a third of which will be paid for by the US government — will be the first in the United States to derive vaccines from cell culture rather than the chicken eggs commonly used at present. The company says its facility is designed to produce 50 million doses of seasonal flu vaccine annually, and up to 150 million doses of avian flu vaccine if required.

China crisis
Amnesty International, the human-rights watchdog, has accused Google, Yahoo and Microsoft of contributing to ‘Internet repression’ in China by cooperating with the country’s authorities. “The apparatus of Internet repression is considered to be more advanced in China than in any other country and companies are particularly well placed to cooperate with the Chinese government,” Amnesty says in a report issued on 20 July. Yahoo has faced a consumer backlash in the West, after giving the police the identity of two dissident Chinese writers, who are now in prison.

Green focus
The Ford motor company has said that it will spend £1 billion (US$1.9 billion) over six years on research and development into cleaner engines. The company says that 9,100 engineers will be deployed in the effort. It is to create a version of its most popular car — the Ford Focus — that delivers 70 miles per gallon. The announcement has been welcomed by the government, but unions note it involves the redeployment of existing resources, not fresh investment.

Market watch

Biotechnology stocks

This week: WoodsMacFarlane, an Edinburgh-based research and consulting firm, reviews recent trends in biotechnology stocks. Biotech continues to retreat from its high point in February, although the rate of decline has slowed. The Nasdaq biotechnology index is down 4% over the past eight weeks, and 12% since the start of the year. Broader indices are also falling in a volatile market. Amgen of Thousand Oaks, California, has fared particularly badly, falling 5% over the past eight weeks and 20% so far in 2006. Investors believe there is a growing threat to Amgen’s erythropoiesis-stimulating hormones for treating anaemia, which generated 15.8 billion in sales in 2005 — nearly half of total turnover. Rival Roche of Basel, Switzerland, has a second-generation erythropoiesis-stimulating hormone, called CERA, which is likely to reach the market in 2007. And the European Union has cleared a path for the approval of generic versions of some biological drugs, including erythropoiesis-stimulating hormones.

Amgen, given more ‘weight’ in the index than any other company, so its losses are an important factor in the overall drop. But many other listed items have suffered. Shares in Wedding Pharmaceuticals of San Diego, California, lost two-thirds of their value after the company suspended a phase III trial of its investigational therapy for treatment of pancreatic cancer. The trial’s lead investigator announced his forthcoming departure. Stock prices in another San Diego company, Nanopore Biociences, dropped by three-quarters after problems with its insomnia drug candidate, inadipine.

In a period of general market anxiety, biotech shares are particularly vulnerable to bad news. Now, strong second-quarter results will be needed to bolster confidence in the sector.

SPINTRONICS AT THE ATOMIC LEVEL

A positive spin on GaAs semiconductors

NATURE JOBS

Clinical trials
Obligations of Providers & Users of TKDL

India’s Strategy Non Disclosure Agreement with International Patent Offices

(CCEA has approved access to TKDL for International Patent Offices)

• **Users**
  - Shall not disclose the content to third party
  - Shall utilize for patent search & examiners, can give printouts to patent applicants for citation purposes
  - No use other than search & examination
  - Will provide non-confidential information received from applicant on usage to provider
  - Will give feedback for enhancing the features of TKDL

• **Provider**
  - Shall provide uninterrupted access
  - Training to users (as and when needed)
  - Render assistance in search & examination (as & when needed)
  - Free to utilize for itself & can grant access to others
An improved patent granting process at an early stage of patent examinations.

A unique encyclopedia

Shedding light on grey areas
- TKDL is precise and TKRC ensures meticulous documentations
- Thanks to TKDL, patent examiners can prove exactly when and where a medical treatment became public knowledge
TKDL Access Agreement with other International Patent Offices

- United States Patents & Trade Mark office (likely to be signed in Nov. 2009)
  - USPTO considers TKDL established by India is part of the very important work being done internationally w.r.t Traditional Knowledge databases. These databases will help to compliment the extensive prior art searches done by the patent examiners in the United States & around the world.

- 11, other International search Authorities (Australia, Japan, Russia, Korea, China, Canada, Finland, Sweden, Austria, Spain, Nordic) – June 2010

- Balance Major International Patent offices
  - Possible by Dec. 2010

- Would protect globally Indian Traditional Medicinal open domain documented knowledge.
Tangible Results of TKDL Access Agreement with EPO

- Normal route of opposition of an international patent - (10-15 years)
  - Neem (10 years)
  - Enola Beans (10 years)
  - Monsonto soyabean (13 years)

- TKDL route (Less than 12 Weeks)
  - Anti-Vitiligo Cream (3 week)
  - Anti Cancer Pistacia Vera (1 weeks)
  - Withdrawal of application by Uniliver on Cardio Vascular tonic (3 Weeks)
  - Composition for Heart Disease and Health Products (9 Weeks)
  - Method for altering the Metabolism Characteristic of Food Products (11 Weeks)
  - Method of Treatment or Management of Stress
Impact of TKDL Access Agreement with European Patent office

- Identification of Patent Applications based on India’s Ayurveda, Unani & Siddha Systems of Medicine
- Citation from TKDL references through Third Party Observations
- Method of Treatment or Management of Stress
TKDL for Validation of Ayurveda, Unani, & Siddha against each other

All systems of Indian system of Medicine have survived & grown in Indian Subcontinent.

Used common Bio and Genetic Resources.

For Diseases of Subcontinent and its population.
Digital Integration of Ayurveda, Unani & Siddha

- **Plant name**
  - Ayurveda/Unani to Italic/Botanical Name
- **Disease Nomenclature**
- **Search on Classification symbols, Disease Symptoms, Plant, Disease, etc.**
Value Addition – Modern Science to TKDL

- Taxonomic Information, citation, synonyms, vernacular names, habitat, geographical information
- Morphological Information
- Cytological Information
- Germplasm Information
- Phytochemistry
- Pharmalogical Information
- Pharmacognostical Information
- Toxicology
- Utilization
## Diseases and Common Indian Medicinal Plants

### Malaria

<table>
<thead>
<tr>
<th>System of Medicine</th>
<th>AYURVEDA</th>
<th>UNANI</th>
<th>SIDDHA</th>
<th>COMMON MEDICINAL PLANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. of Formulations in TKDL</td>
<td>1587</td>
<td>48</td>
<td>95</td>
<td><strong>Brahmi, Neerpirami, Sapthalai, Indravaruni, Pippali, Srmgika visa/Vatsanabha, Sarumam, Acacia arabica, Sambiran ipoondu</strong></td>
</tr>
<tr>
<td>Formulations in TKDL</td>
<td>Aindriasayanam</td>
<td>Habb-e-bukhar</td>
<td>Sanda Marutha Kuzhamabu</td>
<td></td>
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</table>

**TKDL:** Therapeutic Knowledge Data Library
Economic Strength

Oil Rich Middle East Countries

LDCs

Indigenous S&T Capabilities

USA
Europe
Japan

Brazil
China
India
Thank You
### Stages of Formal Acceptance of Traditional Knowledge Classifications

<table>
<thead>
<tr>
<th>Section</th>
<th>Jan 2001</th>
<th>Feb 2001</th>
<th>Mar 2001</th>
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<tbody>
<tr>
<td>Medical or Veterinary Science; Hygiene</td>
<td>India drives agenda on inclusion of traditional knowledge at International Patent Classification Union</td>
<td>Task force of five nations constituted by WIPO</td>
<td>Task force recommends creation of subclass in A61 linking Traditional Knowledge Resource Classification developed by India with International Patent Classification</td>
</tr>
<tr>
<td>Preparation of Animal, Dental or Toilet Purposes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extracts of Animal, Plant or Micro-organisms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials from Plants</td>
<td></td>
<td></td>
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</tbody>
</table>
Stages of Formal Acceptance of Traditional Knowledge Classifications

Feb 2003
International Patent Classification Union adopted 200 subgroups for publication by July, 2005

Accords formal recognition and acceptance of Traditional Knowledge as a distinct discipline at international level

Oct 2004
Deliberations on IPC-TKRC Concordance list of the new main group A61K 36/00
### Country-wise Periodicals included in PCT Minimum

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<th>Country</th>
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<td>9.</td>
<td>Switzerland</td>
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<td>Russia</td>
<td>6</td>
<td>10.</td>
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<td>Czech</td>
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<tr>
<td>6.</td>
<td>Netherlands</td>
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<td>12.</td>
<td>Italy</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>13.</td>
<td>Croatia</td>
<td>1</td>
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<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>144</strong></td>
<td></td>
</tr>
</tbody>
</table>
Section A – Ayurveda

Class
- 01 – Pharmaceutical Preparations (*Kalpana*)
- 02 – Personal Hygiene Preparations
- 03 – Dietary (*food/food stuff or Beverages*)
- 04 – Biocides, Fumigatives (*Dhupana, krmighna*)

Section A Class 01 – Pharmaceutical Preparations (*Kalpana*)

Sub-Class
- 01A Based on *Audbhida* (Plants)
- 01B Based on *Jangama* (Animals)
- 01C Based on *Parthiva* (Minerals)
- 01D Characterised by *Roga* (Diseases)
- 01E Characterised by *Karma* (Action)
- 01F Mode of Administration
- 01G Miscellaneous

Sub-Class: A01A – Pharmaceutical Preparations (*Kalpana*) Based on *Audbhida* (Plants)

- Group A01A 1/00 Whole medicinal plant
- 2/00 Parts of medicinal plant used
- 3/00 Characterised by Physical form
Aindri, matsyākhya, brāhma, vacā, brahma-suvarcalā, pippalti, lāvāṇa, śaṅkhapūṣpi, all in quantity of three barely grains, gold in that of two barley grains, viṣa equal to one sesamum seed and ghee 40 gms,—all should be mixed together and used. After the food is digested, diet containing honey and plenty of ghee should be given.
# Key Attributes of TKDL

**BP/1833**

<table>
<thead>
<tr>
<th>Title of Traditional Knowledge Resource</th>
<th>Knowledge Known Since</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aindriśāyanam</em></td>
<td>1000 Years</td>
</tr>
</tbody>
</table>

**TKRC CODE:**

**IPC Code:**

**DETAILS OF PROCESS / FORMULATION:**

1. *Aindriśāyanam* is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s) : Citrullus colocynthis (Linn.) Schrad. (cucumis), Alternanthera sessilis (Linn.) DC. (sesile arrowhead), Bacopa monnieri (Linn.) Penn. (coastal...
1. Aindīṇasiyānam is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s) : Citrullus colocynthis (Linn.) Schrad. (colocynth), Alternanthera sessilis (Linn.) DC. (sessile joyweed), Bacopa monnieri (Linn.) Penn. (c castal waterhyssop, herb of grace, herb-of-grace), Acorus calamus Linn. (calamus, sweetflag), Cleome ficosa Linn. Syn. C. viscosa Linn. (Asian spiderflower), Piper longum Linn. (Indian Long Piper), Rock salt, Gold, Convolvulus microphyllus Sieb. ex Spieng. Syn.: C. pluricaulis Choisy / Evolulus alsinoides Linn. / Clitoria ternatea Linn., Aconitum chasarotham Siepf & Holm es / Aconitum ferox Wall ex Ser. (Indian aconite), Clarified butter

2. Therapeutic composition / formulation is mentioned below:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Form</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Citrullus colocynthis (Linn.) Schrad. (colocynth)</td>
<td>Root</td>
<td>Powder</td>
</tr>
<tr>
<td>2. Alternanthera sessilis (Linn.) DC. (sessile joyweed)</td>
<td>Leaf</td>
<td>Powder</td>
</tr>
<tr>
<td>3. Bacopa monnieri (Linn.) Penn. (c castal waterhyssop, herb of grace, herb-of-grace)</td>
<td>Whole plant</td>
<td>Powder</td>
</tr>
<tr>
<td>4. Acorus calamus Linn. (calamus, sweetflag)</td>
<td>Rhizome</td>
<td>Powder</td>
</tr>
<tr>
<td>6. Piper longum Linn. (Indian Long Piper)</td>
<td>Fruit</td>
<td>Powder</td>
</tr>
<tr>
<td>7. Rock salt</td>
<td></td>
<td>Powder</td>
</tr>
<tr>
<td>8. Gold</td>
<td></td>
<td>Powder</td>
</tr>
</tbody>
</table>

10. *Aconitum chasmanthum Stepf & Holmes / Aconitum ferox Wall. ex Ser. (Indian aconite)*

11. Clarified butter

3. Therapeutic composition mentioned above is prepared as CURNA: (POWDER)
Ingredients mentioned in the formulation are cleaned and dried properly. They are finely powdered and sieved. Where there are multiple ingredients, they are separately powdered and sieved. Each one of them (powder) is weighed separately, and mixed together. In industry, however, all the ingredients are cleaned, dried and powdered together by disintegrators. Mechanical sifters are also used. Salt, sugar, camphor etc., if mentioned are separately powdered and mixed in the end. Asafoetida (Higu) and salt may also be roasted, powdered and then added. Ingredients, which are to be taken fresh, are made into herbal paste, dried, and then added. Sometimes Bhayavg (trituration) with Svarasa (expressed juice of plants) or Kustha ( decoction) etc. is given if indicated in the formulation.

4. A composition as described above is formulated as Powder.

5. The dose of above mentioned therapeutic composition is 12 gm.

6. Mode of administration Oral administration.

7. It is Memory enhancer, Beneficial for life span, Providing longevity, Nutrient, Beneficial for voice, Complexion promoting, Energy providing, Promoting Ojas, Antipoison; Alexipharmac; Antidote.

8. It is useful in the treatment of Leucoderma/Vitiligo(T), Leprosy and other dermatoses, Diseases of abdomen, Abdominal lump, Enlargement of spleen, Malaria / Intermittent fever, Syncope/Fainting, Epilepsy, Psychosis/Insanity/Mania, Disease with Vata predominance.

LIST OF DOCUMENTS WITH DATE OF PUBLICATION (PRIOR ART):

Agniśa 
சான்றாருக்கு குறிப்பிட்டு

பட்டூர் மக்கள் அரசியல் சிற்றுnitின்
பகுதிகளில், மொழி மற்றும் விளக்கம்
அளிக்கும் பெயரிட்டு வருவர் சட்டமன்றத்


சுற்று பட்டூர் மக்கள் அரசியல் சிற்றுnitின்
செயல்முறையின், குற்றம் மற்றும் அரசியல்
செயல்முறையின் உயர்ந்த குழுவான சுற்று
பட்டூர் மக்கள் அரசியல் சிற்றுnitின்
குழுவின் நிறுவனர் திரு. புதுவையில், பெயரிட்டு
செயல்முறையின் முழுவதும் விளக்கம் உள்ளது.


சுற்று பட்டூர் மக்கள் அரசியல் சிற்றுnitின்
செயல்முறையின், குற்றம் மற்றும் விளக்கம்
குழுவான சுற்று பட்டூர் மக்கள் அரசியல்
சிற்றுnitின் நிறுவனர் சுற்று பட்டூர் மக்கள்
அரசியல் சிற்றுnitின் நிறுவனர் திரு. புதுவையில், பெயரிட்டு
कुटजाविदिकपायः
कुटजं स्वादिष्टं मुस्तं धातकीविल्पथालकम्।
लोचन्रचन्द्रन्यायः कथायं मधुना विभेदः॥३१॥
सामे शाले च रसे च विष्णुस्मायो च श्रस्ये।
कुटजाविदिरिति श्रावः सर्वातीसारनाशनः॥३२॥
बहुशोऽद्धार्णलोऽध्यम्॥३१-३२॥

हन्तालय, दुःस्फोटकं क्रियाके विषुवके, मोचा, घाय च फूल, गेहुः
के पान का गृहा, नेत्रवासा, त्वचा, शाल चन्द्रन्य और पाठा
इनका स्वाद बनाकर उसमें शाहद सिलाकर थीना बाहिरये।
यह कथाय आमतिसार, सयुक्ततिसार, रक्षासार और
विष्णु तदर्थायुत्तं अतिसार में प्रसारत है। यह कुटजावि
कथाय प्रायः सर्वप्रकार के अतिसार को मना करता है॥३१-३२॥
## Key Attributes of TKDL

<table>
<thead>
<tr>
<th>Title of Traditional Knowledge Resource</th>
<th>Knowledge Known Since</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kutajadikaśāyah</td>
<td>200 Years</td>
</tr>
</tbody>
</table>

**TKRC CODE:**

**IPC Code:**
A61K35/64, A61K35/78, A61K9/08, A61P1/06, A61P1/12, A61P1/14, A61P1/16, A61P1/18, A61P1/70, A61P17/00, A61P17/02, A61P29/00, A61P31/00, A61P33/04

### DETAILS OF PROCESS / FORMULATION:

1. **Kutajadikaśāyah** is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s): Holarrhena antidysenterica (Roxb. ex Flen.) Wall. ex DC. (tellicherry bark), Punica granatum Linn. (pomegranate), Cyperus rotundus Linn./Cyperus scariosus R. Br. / Cyperus arundineaeum Baker (chaguan humatag, cocograss, kīl’o’opu, nutgrass, pakopako, purple nursedge), Woodfordia fruticosa (Linn.) Kurz., Aegle marmelos Correa ex Roxb. (Indian bael), Coleus vettiveroides K.C. Jacob / Valeriana jatamansi Jones Syn.: V. wallichii DC., Symlocos racemosa Roxb. (sweetleaf, symlocos), Pterocarpus santalinus Linn. f. (red sandal wood), Cissampelos pareira Linn. (pareira brava), Honey

2. Therapeutic composition / formulation is mentioned below:
<table>
<thead>
<tr>
<th>No.</th>
<th>Plant Name</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Holarrhena antidysenterica (Roxb. ex Flem.) Wall. ex DC.</td>
<td>Seed</td>
</tr>
<tr>
<td>2</td>
<td>Punica granatum Linn. (pomegranate)</td>
<td>Fruit rind</td>
</tr>
<tr>
<td>3</td>
<td>Cyperus rotundus Linn. / Cyperus scariosus R. Br. / Cyperus arundinaceum Baker (chaguan humatag, cocgrass, kili o'opu, nutgrass, pakopako, purple nutsedge)</td>
<td>Stem tuber</td>
</tr>
<tr>
<td>4</td>
<td>Woodfordia fruticosa (Linn.) Kurz.</td>
<td>Flower</td>
</tr>
<tr>
<td>5</td>
<td>Aegle marmelos Correa ex Roxb. (Indian bael)</td>
<td>Fruit pulp</td>
</tr>
<tr>
<td>6</td>
<td>Coleus vetteiroides K.C. Jacob / Valeriana jatamansii Jones Syn.: V. wallichii DC.</td>
<td>Root</td>
</tr>
<tr>
<td>7</td>
<td>Symplocos racemosa Roxb. (sweetleaf, symplocos)</td>
<td>Stem bark</td>
</tr>
<tr>
<td>8</td>
<td>Pterocarpus santalinus Linn. f. (red sandal wood)</td>
<td>Heartwood</td>
</tr>
<tr>
<td>9</td>
<td>Cissampelos pareira Linn. (pareira brava)</td>
<td>Root</td>
</tr>
<tr>
<td>10</td>
<td>* Prakşapa Dravya (Additives)</td>
<td>-</td>
</tr>
</tbody>
</table>

**3. Therapeutic composition mentioned above is prepared as KVÂTHÂ (DECOCTION)**

KVÂTHA (decoction) is prepared by boiling powdered plant material with required quantity of water. A specific quantity of water is retained after boiling, which is then filtered to obtain KVÂTHA. It is also called Šrta, Niryûha and Kašâyâ.

* Prakşepadravya = The fine powder of some fragrant and other ingredients like honey, clarified butter etc. is added to kvatha, which is called Prakşepadravya.

**4. A composition as described above is formulated as Decoction / Water extract.**

**5. The dose of above mentioned therapeutic composition is 24-48 gm.**

7. It is useful in the treatment of Diarrhoea with predominance of Ama, Acute diarrhoea, with Colic, Blood dysentery, Acute diarrhoea, with Slimmi, Discharge, and All types, Acute diarrhoea.
جواهرش تنواع تایپ نهایی می‌کنیم

علی‌الله‌ای بست، سالی داده‌ای باه‌ی‌های شیطنت که سالی داده‌ای باه‌ی‌های شیطنت

فیخی یا صفا که آن تیارج قطعیٴت شیطنت، پیست وی این انبور که یادگاری شیطنت سوده‌رو سرتشکار کنن. میرا

در آخرین کتاب‌میرا می‌شیطنت، هر چند ریست، هر چند ریست سبب وی الذی شریت، وی الذی شریت، وی الذی شریت

امیری که شیطنت با فیخی، یک تنواع وی نشان‌های میرا نشان وی نشان که یکن.
312 அரிசுகிறார் அறிந்துசெய்யப்பட்டு குறிப்பிட்டேன்

(5) அண்ணறிக, அறிமுகம், விளக்கக்கில்பாற, தாதுக்குறை, விடை, அண்ணறிக, துடுக்கா, குறிப்பிட்டுப்பட்டார், இதுவே நம்பியோடு, விளக்கம், விளக்கன்ற அல்லார், அண்ணறிக துடுக்கா துடுக்கானால் குறிப்பிட்டு குறித்து விளக்கணையோடு குறிப்பிட்டு நம்புவலாம். அண்ணறிக அண்ணறிக வங்கியோடு விளக்கணையோடு குறிப்பிட்டு குறித்து விளக்கணையோடு.
रसतन्त्रसार व सिद्धप्रयोगसंग्रह
द्वितीय खण्ड

92. मधुमेह दमन चूर्ण।

प्रयोग-गुहार ८ तोले, बिनोले की मीगी ४ तोले, जामुन की गुडलियों की मीगी ४ तोले, सूखे बिल्लिपत्र ६ तोले तथा शुष्क निम्बपत्र २ तोले ले।

विधि-सबको कूट पीस-कपड़न चूर्ण बनाकर शीशी में भर ले।

भाषा-२ से ३ मास तक, जल के साथ दिन में २ समय सेवन करें।

उपयोग-इसके सेवन से मधुमेह रोग के कारण उत्पत्ति होती रहने वाली शर्करा पर अति शीर्ष काबू हो जाता है, चाहे वह शर्करा केवल मूत्र में ही उत्पत्ति हुई हो अथवा उसकी उपस्थिति रक्तान्तरण भी हो गई हो। इसके अतिरिक्त यह अग्न्याशय और यकृत के विकारों को दूर कर मधुमेह का दमन भी करती है।

सूचना-यदि कस्तन कुसुमकर रस के सहयोग से इस चूर्ण का प्रयोग किया जाये तो मधुमेह रोग में निरंतर लाभ होने की आशा है।
# Key Attributes of TKDL

**Title of Traditional Knowledge Resource**

Madhumeha Damana Curna

**Knowledge Known Since**

50 Years

**TKRC CODE:**


**IPC Code:**


## DETAILS OF PROCESS / FORMULATION:

1. **Madhumeha Damana Curna** is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s):
   - Gymnema sylvestre (Retz.) R.Br. ex Schult. (meṣaṣṭṛgi, madhunāšini) (miracle fruit)
   - Gossypium herbaceum Linn. (kārpāśa) (Levant cotton)
   - Syzygium cumini (Linn.) Skeels (jambū) (jambolan plum)
   - Java plum
   - Kavika ni India
   - Mesegerak
   - Aegle marmelos Correa ex Roxb. (bilva) (Indian bael)
   - Azadirachta indica A. Juss. (nimba) (neem)

2. **Therapeutic composition / formulation is mentioned below:**

   1. Gymnema sylvestre (Retz.) R.Br. ex Schult. (meṣaṣṭṛgi, madhunāšini) (miracle fruit) **Leaf** 96 gm
   2. Gossypium herbaceum Linn. (kārpāśa) (Levant cotton) **Seed** 48 gm
3. Syzygium cumini (Linn.) Skeels (jambū) (jambolan plum, Java plum, kavika ni India, mese’erak)
   Endosperm 48 gm

4. Aegle marmelos Correa ex Roxb. (bilva) (Indian bael)
   Leaf - Non-unctuous Rough / Dry / 72 gm

5. Azadirachta indica A, Juss. (nimba) (neem)
   Leaf - Non-unctuous Rough / Dry / 24 gm

3. The therapeutic composition mentioned above is prepared as CūRNA : (POWDER)
   Ingredients mentioned in the formulation are cleaned and dried properly. They are finely powdered and sieved. Where there are multiple ingredients, they are separately powdered and sieved. Each one of them (powder) is weighed separately, and mixed together. In industry, however, all the ingredients are cleaned, dried and powdered together by disintegrators. Mechanical sifters are also used. Salt, sugar, camphor etc., if mentioned are separately powdered and mixed in the end. Asafoetida (Hīgu) and salt may also be roasted, powdered and then added. Ingredients, which are to be taken fresh, are made into herbal paste, dried, and then added. Sometimes Bhāvarā (mixture) with Svarasa (expressed juice of plants) or Kvātha (decoction) etc. is given if indicated in the formulation.

4. A composition as described above is formulated as Powder (cūrna).

5. The dose of above mentioned therapeutic composition is 2-3 gm.

6. It is given with adjuvant of Water (jala/udaka).

7. Mode of administration: Oral administration (auṣadhi pāna).

8. Time of administration 2 Time(s) per day.

9. It is useful in the treatment of Diabetes mellitus (madhumeha)

LIST OF DOCUMENTS WITH DATE OF PUBLICATION (PRIOR ART):

Rasatантрасāraḥ Evam Siddhāpryayogasamgrahah; part II; Krishan Gopal Ayurveda Bhawan; Edn 8th; 1990 [This book contains back references from 1000 B.C. to 20th century]
مزید سوچنے کے لئے میں خوشحال ہوں کہ مзвویں جنگ کے بعد اور گزر چکا ہے۔ ان سوائے سماج کا کم ہے۔ وہ زندہ ہے کہ مکمل ہے۔

بہت کچھ ہماپت سمجھے
Value Addition – Modern Science to TKDL

- Taxonomic Information, citation, synonyms, vernacular names, habitat, geographical information
- Morphological Information
- Cytological Information
- Germplasm Information
- Phytochemistry
- Pharmacological Information
- Pharmacognostical Information
- Toxicology
- Utilization
COMPONENTS OF BIODIVERSITY DIGITAL LIBRARY

KINGDOM....Plantae
CLASS....Magnoliopsida (Dicotyledons)
FAMILY....Scrophulariaceae
GENUS....Bacopa Aubl.
SPECIES....Bacopa monnieri (Linn.) Penn.

Citation: in Proc. Acad. Nat. Sci. Philad.98:94, 1946;
Santapau in RBSI. 16(1): 201, 1953.
Status: Abundant
known Since: 1756
TKDL TKRC:
Ploidy level:
Basic No.:
Chromosome No.:

SYNONYMS

LYSIMACHIA MONNIERI LINN. .... Cent. Pl. 2:9, 1756.
MONIERA CUNEIFOLIA MICHX. .... Fl. Bor-Amer. 2 : 22, 1803
(Monniera);

VERNACULAR NAMES

English .... Water hyssop
Hindi .... Jalnim, Brahmi; Neem-jal; jal-lep.
Kannada .... Niru brahmi
Malayalam .... Nirbrahmi
Marathi .... Nirbrahmi
Bengali .... Brihmi-sak
Sanskrit .... Nira-Brahmi, Manduki
Tamil .... Nirbrahmi,
Telugu .... Sambrani chettu

MORPHOLOGY
3. Chemical Constituent: Betulinic acid (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 11
3. Chemical Constituent: Flavonoids-Apigenin (Active)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 12
3. Chemical Constituent: Cynaroside and Luteolin (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 13
3. Chemical Constituent: Nicotine (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 14
3. Chemical Constituent: Hersaponin (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:
MORPHOLOGY

Habit .... A spreading or ascending branches, evergreen, fleshy herb. The branches spread on moist ground and forms dense mat
Root .... Roots are found growing at nodes.
Leaves .... The Leaves obovate-oblong or spatulate, obtuse, succulent, up to 1.8 X 0.6 cm. club shaped stalkless, and fleshy. The leaves are in bitter tasting.
Flowers .... Flowers bluish-purplish or white with bluish veins, erect, solitary, short or long-pedicellate at the axis of the leaves. The flowers are short lived and colour lightens gradually.
Fruits .... The fruits are capsules. Ovoid, Glabrous, 4-5 X 3-4 mm.
Seeds .... The capsules break open to release numerous minute black seeds.
Flowering period .... Aug.-Oct.
Fruiting period .... Nov.-dec.

PHYTOCHEMISTRY

1. Plant Part Used: Leaves
2. CAS Number: 21
3. Chemical Constituent: Sterol (InActive)
4. Molecular Formula: C26H46O.H2O
5. Molecular Weight:
6. Melting Point: 76

1. Plant Part Used: Whole plant
2. CAS Number: 1
3. Chemical Constituent: Dammaranes Bacosides A (2.5-3%) and B (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 10
1. Plant Part Used: Whole plant
2. CAS Number: 15
3. Chemical Constituent: Herpestine (alkaloid) (InActive)
4. Molecular Formula: C34H46N2O6
5. Molecular Weight:
6. Melting Point: 116-17

1. Plant Part Used: Whole plant
2. CAS Number: 16
3. Chemical Constituent: Jujubagenin (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 17
3. Chemical Constituent: Monnerin (InActive)
4. Molecular Formula: C51H82O21.3H2O
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 18
3. Chemical Constituent: Sodium and Potassium salts (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 19
1. Plant Part Used: Whole plant
2. CAS Number: 2
3. Chemical Constituent: Triterpene-Bacosine (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 20
3. Chemical Constituent: Hersaponin (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 22
3. Chemical Constituent: Betulic acid (InActive)
4. Molecular Formula: C41H68O13.5H2O
5. Molecular Weight:
6. Melting Point: 203 (Decomp)

1. Plant Part Used: Whole plant
2. CAS Number: 23
3. Chemical Constituent: Bacoside B (InActive)
4. Molecular Formula: C30H48O4
5. Molecular Weight:
1. Plant Part Used: Whole plant
2. CAS Number: 24
3. Chemical Constituent: Saponins (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 3
3. Chemical Constituent: Monnierin (InActive)
4. Molecular Formula: C51H82O21.3H2O
5. Molecular Weight:
6. Melting Point: 262-63

1. Plant Part Used: Whole plant
2. CAS Number: 4
3. Chemical Constituent: Alkaloids Herpestine (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 5
3. Chemical Constituent: Brahmine (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 6
3. Chemical Constituent: Triterpenes (InActive)  
4. Molecular Formula:  
5. Molecular Weight:  
6. Melting Point:  

1. Plant Part Used: Whole plant  
2. CAS Number: 7  
3. Chemical Constituent: Flavonoids (InActive)  
4. Molecular Formula:  
5. Molecular Weight:  
6. Melting Point:  

1. Plant Part Used: Whole plant  
2. CAS Number: 8  
3. Chemical Constituent: Bacosides A (Active)  
4. Molecular Formula: C41H68O13.4H2O  
5. Molecular Weight:  
6. Melting Point: 232-34(DECOMP.)  

1. Plant Part Used: Whole plant  
2. CAS Number: 9  
3. Chemical Constituent: Bacogenin (InActive)  
4. Molecular Formula:  
5. Molecular Weight:  
6. Melting Point:  

GEOGRAPHIC DISTRIBUTION  
ADILABAD ....  
DEHRADUN .... Robers Cave  

HABITAT
HABITAT
Marshy, Semi Aquatic,

SOURCE OF ORIGIN
Old Literature .... The Wealth of India; A Dictionary of Raw Materials & Industrial products; NISCOM.CSIR. New Delhi

KNOWLEDGE HOLDERS
Institute .... Khanuja S.P.S

MAIN USAGE
Whole plant .... Improve intellect, The plant is reported to be useful in treating biliousness, inflamations, epilepsy, insanity, tumour, ulcers, flatulence, constipation, asthma, bronchitis, skin diseases, leprosy, lecuderma, sterility, fever and general debility.

GERMPLASM INFORMATION
1. Plant Part: Whole plant
2. Institute Name: National Bureau of Plant Genetic Resources (NBPGR), New Delhi
3. Accession Number: 11

1. Plant Part: Whole plant
2. Institute Name: National Institute of Science Communication And Information Resources, (NISCAIR), New Delhi.
3. Accession Number: 100

PHARMACOLOGICAL INFORMATION
Plant Parts used as Drug: LEAVES
1. Drug Form: Paste
2. Test Model: External
3. Dosage:
4. Drug Description:
5. Mode of administration:  
6. Mode Of Action:  
REMEDY FOR RHEUMATISM  
The paste of leaves is used for rheumatism

Plant Parts used as Drug:  WHOLE PLANT  
1. Drug Form: Extract  
2. Test Model: Learning Performance  
3. Dosage:  
4. Drug Description: Saponin; Bcoside A & B.  
5. Mode of administration:  
6. Mode Of Action:  
THERAPEUTIC  
Treatment with plant extract improve maze learning in rats.

Plant Parts used as Drug:  WHOLE PLANT  
1. Drug Form: Mixture  
2. Test Model: Dose administered on cat  
3. Dosage: 0.5mg/kg  
4. Drug Description: Brahmine  
5. Mode of administration: Different dose  
6. Mode Of Action:  
THERAPEUTIC  
Brahmine is highly toxic; when administered at a dose of 0.5 mg/kg body wt. of cat, it produce a fall in blood pressure.

PHARMACOGNOSTICAL INFORMATION

Plant Part used:  WHOLE PLANT  
1. Macroscopic Characters: Herb -- Creeping, glabrous, succulent herb, rooting at nodes; stem-thick, soft, glabrous, branches ascending. Leaves-Sessile, ovate-oblong or spatulate, entire, nerves obscure and lower surface dotted with black specks; Flower- Blue or white with purple veins, axillary and solitary on long pedicels. Capsules - Ovoid, blabrous  
2. Microscopic Characters: Leaf-More or less isobilateral structure; epidermis with striated cuticle;
2. Microscopic Characters: Leaf-More or less isobilateral structure; epidermis with striated cuticle; stomata on both surfaces; epidermal cells have walls and glandular hairs on both surfaces, smaller on conical stalk and larger with 8-celled head; few prismatic crystals of Ca.Oxalate in mesophyll; no distinct midrib present; vascular bundles surrounded by bundle sheaths. Distinct bundle sheath surrounds vascular bundle of midrib. Transverse section shows lack of differentiation of mesophyll in the palisade and spongy layers. Both the epidermii show anisocytic type of stomata and glandular hairs.
3. Powder Characters:
4. Histochemical Characters:
5. Drug Description: Crude drug
6. Organoleptic Characters:
7. Chemical Components: Bacoside A (2.5 - 3%), Bacoside B and other bacosides, Hersaponin, Betulic acid, Monnierin, Alkaloids - Brahmine(0.01-0.02%) and Herpestone; Flavonoids; Saponin, D-mannitol, Nicotine, Saponins-Monierin, Sapogenins-Bacogenin A1-A4. Bacosine
8. Finger Printing:

Plant Part used: LEAVES
1. Macroscopic Characters: Obovate-oblong or spathulate, obtuse, succulent, entire nervous obsculre and lower surface dotted with black specks. 1.8 X 0.6 cm.
2. Microscopic Characters: Leaf more or less isobilateral structure; epidermis with striated cuticle; stomata on both surface; epidermal cells have wavy walls and glandular hairs on both surfaces, smaller on conical stalk and larger with 8-celled head; few prismatic crystals of Ca. oxalate in mesophyll; no distinct midrib present; vascular bundle surrounded by bundle sheaths.
3. Powder Characters:
4. Histochemical Characters: Transverse section shows lack of differentiation of mesophyll in the palisade and spongy layers.
5. Drug Description: Crude drug
6. Organoleptic Characters:
7. Chemical Components: Bacoside A, Bacoside B, Brahmine
8. Finger Printing:

TOXICOLOGICAL INFORMATION
DIGITAL HERBARIUM

1. Name Of Institute: National Institute of Science Communication And Information Resources, (NISCAIR), New Delhi.
2. Field Number: 2
3. Accession Number: 2
4. Barcode: |||563789|||
5. Date of Collection: 10/11/04
6. Local Name: Brahmi
7. Locality: Niscair
8. Collected By: Dr T.K. Mukherjee
9. Identified By: Dr. Bala Subramaniam

1. Name Of Institute: National Institute of Science Communication And Information Resources, (NISCAIR), New Delhi.
2. Field Number: 1
3. Accession Number: 1
4. Barcode: |||||1890|||
5. Date of Collection: 10/11/04
6. Local Name: Brahmi
7. Locality: Patel Nagar
8. Collected By: Dr. Bala Subramaniam
9. Identified By: Dr. H.B. Singh

1. Name Of Institute: National Institute of Science Communication And Information Resources, (NISCAIR), New Delhi.
2. Field Number: 3
3. Accession Number: 3
4. Barcode: ||2345||25
5. Date of Collection: 10/11/04
6. Local Name: Brahmi
7. Locality: Patel Nagar
8. Collected By: Dr H.B. Singh
9. Identified By: Dr T.K. Mukherjee
9. Identified By: Dr T.K. Mukherjee

BIBLIOGRAPHIC REFERENCES

(1) THE INDIAN PHARMACEUTICAL CODEX, Mukherji, B.
(2) THE AYURVEDIC PHARMACOPOEIA OF INDIA, Anonymous
(3) MEDICINAL PLANTS OF INDIA, Anonymous
(4) ILLUSTRATED MANUAL OF DRUGS USED IN AYURVEDA, Sarin, Y. K.
(5) DATABASE ON MEDICINAL PLANTS USED IN AYURVEDA, Sharma P.C., Yelne M.B, Dennis T.J.
(6) INDIAN HERBAL PHARMACOPOEIA, Anonymous
(7) THE FLORA OF DELHI, Maheshwari J.K., 1963, 254
(8) THE USEFUL PLANTS OF INDIA, Ambasta S.P., 65
(9) THE USEFUL PLANTS OF INDIA, Ambasta S.P., 1992, 65
(10) THE USEFUL PLANTS OF INDIA, Ambasta S.P., 1992, 254
(11) THE USEFUL PLANTS OF INDIA, Ambasta S.P., 1992, 65
(12) INDIAN J. PHARM., Chopra et al., 1956, 18, 369
(13) WOI, Anonymous
(14) WOI, Anonymous, 1988, 2: B, 2
(15) WOI, Anonymous, 1988, 2: B (Revised), 2
(16) WOI, Anonymous, 1988, 2:B, 2
(17) WOI, Anonymous, 1988, 2:B (Revised), 2
(18) WOI, Anonymous, 1988, 2:B (Revised), 3
Bacopa monnieri
Citrullus colocynthis

Indravāraṇī  Citrullus colocynthis (Linn.) Schrad.
Alternanthera Sessilis
Acorus calamus
Piper longum
بیاض کر ہے

حقیق دوام

ہم جنگریوں کے لئے تجاویز بھی بہت سخت ہیں۔ جنگریوں کے لئے تجاویز بھی بہت سخت ہیں۔ جنگریوں کے لئے تجاویز بھی بہت سخت ہیں۔
Key Attributes of TKDL

Title of Traditional Knowledge Resource: Habb-e-bukhar

Knowledge Known Since: 50 Years


IPC Code: A61K 36/48, A61K 36/59, A61K 36/899, C01B 5/00, A61P 29/00, A61P 33/06, A61P 33/00, A61P 29/00, A61P 29/00, A61P 43/00

Details of Process / Formulation:

1. Habb-e-bukhar is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s): Bambusa arundinacea (Retz.) Roxb. Syn.: B. bambos Voss (bamboo), Acacia arabica Wild., Tinospora cordifolia Miers (tinospora), Water

2. Therapeutic composition / formulation is mentioned below:

   1. Bambusa arundinacea (Retz.) Roxb. Syn.: B. bambos Voss (bamboo) Excised 12 gm

   2. Acacia arabica Wild. Excised 3 gm

   3. Tinospora cordifolia Miers (tinospora) Stem 6 gm
3. Therapeutic composition mentioned above is prepared as HUBOOB Huboob (pills) are medicinal preparations made by mixing powdered drugs in a suitable binder (Water/Oil/Resin of plant) and made into round and uniformly shaped balls of the required size. To avoid the sticking of the lubdi during the rolling between the fingers lubricants like Raughan Zard or Raughan-e-Kunjad is applied.

4. A composition as described above is formulated as Pills.

5. The dose of above mentioned therapeutic composition is 1-2 Pills.


7. Time of administration: Morning, Afternoon, and In the evening.

8. It is useful in the treatment of seasonal fever, Malaria / Intermittent fever, and used for prevention of Fever/Pyrexia.

LIST OF DOCUMENTS WITH DATE OF PUBLICATION (PRIOR ART):

Kabiruddin Bayaz-e-Kabir Volume II

prior art

Page 33
Aindri, matsyakhyaka, bráhmi, vacá, brahma-suvarcalá, pippalī, lāvaṇa, śaṅkapuşpi, all in quantity of three barely grains, gold in that of two barley grains, viṣa equal to one sesamum seed and ghee 40 gms,—all should be mixed together and used. After the food is digested, diet containing honey and plenty of ghee should be given.
# Key Attributes of TKDL

**BP/1833**

<table>
<thead>
<tr>
<th>Title of Traditional Knowledge Resource</th>
<th>Knowledge Known Since</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aindrīrasāyanam</td>
<td>1000 Years</td>
</tr>
</tbody>
</table>

**TKRC CODE:**


**IPC Code:**


**DETAILS OF PROCESS / FORMULATION:**

1. *Aindrīrasāyanam* is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s): *Citrullus colocynthis* (Linn.) Schrad. (cocolynt), *Alternanthera sessilis* (Linn.) DC. (sessile sowweed), *Bacopa monnieri* (Linn.) Penn. (coastal...
1. **Aindriyasayanam** is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s) : Citrullus colocynthis (Linn.) Schrad. (colocynthis), Alternanthera sessilis (Linn.) DC. (sessile joyweed), Bacopa monnieri (Linn.) Penn. (coastal waterhyssop , herb of grace, herb-of-grace ), Acorus calamus Linn. (calamus, sweetflag), Cleome icosandra Linn. Syn. C. viscosa Linn. (Asian spiderflower ), Piper longum Linn. (Indian Long Pipper), Rock salt, Gold, Convolvulus microphyllus Sieb. ex Spieng. Syn.: C. pluricaulis Choisy / Evolulus alsinoides Linn. / Clitoria ternatea Linn., Aconitum chasmanthum Stapf & Holmes / Aconitum ferox Wall. ex Ser. (Indian aconite), Clarified butter

2. Therapeutic composition / formulation is mentioned below :

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrullus colocynthis (Linn.) Schrad. (colocynthis)</td>
<td>Root Powder</td>
<td>120 mg</td>
</tr>
<tr>
<td>Alternanthera sessilis (Linn.) DC. (sessile joyweed)</td>
<td>Leaf Powder</td>
<td>120 mg</td>
</tr>
<tr>
<td>Bacopa monnieri (Linn.) Penn. (coastal waterhyssop, herb of grace, herb-of-grace)</td>
<td>Whole plant Powder</td>
<td>120 mg</td>
</tr>
<tr>
<td>Acorus calamus Linn. (calamus, sweetflag)</td>
<td>Rhizome Powder</td>
<td>120 mg</td>
</tr>
<tr>
<td>Cleome icosandra Linn. Syn. C. viscosa Linn. (Asian spiderflower)</td>
<td>Root Powder</td>
<td>120 mg</td>
</tr>
<tr>
<td>Piper longum Linn. (Indian Long Pipper)</td>
<td>Fruit Powder</td>
<td>120 mg</td>
</tr>
<tr>
<td>Rock salt</td>
<td></td>
<td>120 mg</td>
</tr>
<tr>
<td>Gold</td>
<td>Calcinated drug Powder</td>
<td>80 mg</td>
</tr>
<tr>
<td>Convolvulus microphyllus Sieb. ex Spieng. Syn.: C. pluricaulis Choisy / Evolulus alsinoides Linn. / Clitoria ternatea Linn.</td>
<td>Whole plant Powder</td>
<td>120 mg</td>
</tr>
</tbody>
</table>
9 Convolvulus microphyllus Sieb. ex Spreng. Syn.: C. pluricaulis Choisy / Evolvulus alsinoides Linn. / Clitoria ternatea Linn.

10 Aconitum chasmanthum Stepf & Holmes / Aconitum ferox Wall. ex Ser. (Indian aconite)

11 Clarified butter

3. Therapeutic composition mentioned above is prepared as CURNA (POWDER).
Ingredients mentioned in the formulation are cleaned and dried properly. They are finely powdered and sieved. Where there are multiple ingredients, they are separately powdered and sieved. Each one of them (powder) is weighed separately, and mixed together. In industry, however, all the ingredients are cleaned, dried, and powdered together by disintegrators. Mechanical sifters are also used. Salt, sugar, camphor etc., if mentioned are separately powdered and mixed in the end. Asafoetida (Higt) and salt may also be roasted, powdered and then added. Ingredients, which are to be taken fresh, are made into herbal paste, dried, and then added. Sometimes Bhawang (trituration) with Svarasa (expressed juice of plants) or Kvatha (decoction) etc. is given if indicated in the formulation.

4. A composition as described above is formulated as Powder.

5. The dose of above mentioned therapeutic composition is 12 gm.

6. Mode of administration Oral administration.

7. It is Memory enhancer, Beneficial for life span/ Providing longevity, Nutrient, Beneficial for voice, Complexion promoting, Energy providing/ Promoting Ojas, Antipoison; Alesiparmac; Ant dote.

8. It is useful in the treatment of Leucoderma/Vitiligo(T), Leprosy and other dermatoses, Diseases of abdomen, Abdominal lump, Enlargement of spleen, Malaria / Intermittent fever, Syncope/ Fainting, Epilepsy, Psychosis/ Insanity/ Mania, Disease with Vata predominance.

LIST OF DOCUMENTS WITH DATE OF PUBLICATION (PRIOR ART):

அமர்சிக்க விளக்கம்

நூற்றாண்டுகளுக்குப் பின் வடிவாக அளவாயி நடைபெற்ற
பொறியியல் பிரகாமான, அதிசயம் முளைவிக்கமல் சாக்குவர்கள்
தலைக் கூற்றகர் ஆழ்வாரின் தரை பிறந்து வந்தது.

நூற்றாண்டின் தொடக்க வரையில் மலர்சிக்க விளக்கம்
காணப்பட்டது, கொண்டுவரவேற்பான ஒரு நதியார் அரசிலிருந்து
கோயில் நாருக்குடன் பெரும் குற்றங்கள் செய்திகளை, போர்ச்சம் அமர்சிக்க
காரணங்களை தோற்றுக்கொள்ளினே குறித்திருப்பது.

நூற்றாண்டுகள் விளக்கம் வரையில் பெரும் தொல்லியலை
பெருக்கியிருந்தது, சிரைவர் ஒன்றியங்களும் தேய்நூற்றாண்டு
குழுவின் முதலீட்டிற்குப் பெரும் தொல்லியலை விளக்கியிருந்தது, போர்ச்ச வாண்டினே
பெரும் விளக்கம் விளக்கியிருந்தது. 481

அமர்சிக்க விளக்கம் வரையில் பெரும் தொல்லியலை
பெருக்கியிருந்தது, போர்ச்ச வாண்டினே தேய்நூற்றாண்டு
குழுவின் முதலீட்டிற்குப் பெரும் விளக்கம் விளக்கியிருந்தது.
कुटजाविख्रपायः
कुटजः दूसर्मथ मुस्तां धातकोशिलवचालकम्।
लोभचन्द्रनपाठाध्य कषायः मधुना विवेतु। ॥३१॥
सामे शाले बरके च पिछ्छास्रावे च शस्यते।
कुटजाविसर्जिति व्यातः सर्वतीसारनाशनः। ॥३२॥
बहुवों दण्डकरोऽयम्। ॥३१-३२॥
हृण्डश्रोवः, दण्डिनश्रोते के बिस्त्रके, मोधा, धार के फूल, बेचुः
के पाठ का गृहा, नेवारवारा, छोटा, छाल चन्द्रन और पाठा
इनका बयाध बनाकर उसमें शहूः समाकर धीमा बाहिरिय।
यह कषाय आमालितिसार, सहृद्दातिसार, रक्तातिसार और
पिछ्छुः पद्रुर्ध्वंशत्र अतिसार में प्रक्षस्त है। यह कुटजावि
कषाय प्रायः सर्वप्रकार के अतिसार को नष्ट करता हैा॥३१-३२॥
Key Attributes of TKDL

Title of Traditional Knowledge Resource: Kutajādi kāśāyāh
Knowledge Known Since: 200 Years


IPC Code: A61K35/64, A61K35/78, A61K9/08, A61P1/06, A61P1/12, A61P1/14, A61P1/16, A61P1/18, A61P1/70, A61P1/70/00, A61P1/70/02, A61P29/00, A61P31/00, A61P33/04

Details of Process/Composition:

1. **Kutajādi kāśāyāh** is a therapeutic single/compound formulation consisting of useful parts of following ingredients: Holarrhena antidysenterica (Roxb. ex Flam.) Wall. ex DC. (tellicherry bark), Punica graminatum Linn. (pomegranate), Cyperus rotundus Linn. / Cyperus scariosus R. Br. / Cyperus arundinaceum Baker (chaguan humatag, cocograss, kili'o'opu, nutgrass, pakopako, purple nursedge), Woodfordia fruticosa (Linn.) Kurz., Aegle marmelos Correa ex Roxb. (Indian bael), Coleus vottivoides K.C. Jacob / Valeriana jatamansi Jones Syn.: V. wallichii DC., Symphocos racemosa Roxb. (sweetleaf, symphocos), Pterocarpus santalinus Linn. f. (red sandal wood), Cissampelos pareira Linn. (pareira brava), Honey

2. Therapeutic composition/formulation is mentioned below:
1. Holarrhena antidysenterica (Roxb. ex Hem.) Wall. ex DC. (tellicherry bark)  
2. Punica granatum Linn. (pomegranate)  
3. Cyperus rotundus Linn. / Cyperus scariosus R. Br. / Cyperus arundinaceum Baker (chaguan humatag, cocogress, kili o’opu, nutgrass, pakopako, purple nutsedge)  
4. Woodfordia fruticosa (Linn.) Kurz.  
5. Aegle marmelos Correa ex Roxb. (Indian bael)  
6. Coleus vettiveroides K.C. Jacob / Valeriana jatamansi Jones Syn.: V. wallichii DC.  
7. Symplocos racemosa Roxb. (sweetleaf, symplocos)  
8. Pterocarpus santalinus Linn. f. (red sandal wood)  
9. Cissampelos pareira Linn. (pareira brava)  
* Prakşępa Dravya (Additives)  
10. Honey

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Holarrhena antidysenterica</td>
<td>Seed</td>
</tr>
<tr>
<td>2</td>
<td>Punica granatum</td>
<td>Fruit rind</td>
</tr>
<tr>
<td>3</td>
<td>Cyperus rotundus Linn. / Cyperus scariosus R. Br. / Cyperus arundinaceum Baker</td>
<td>Stem tuber</td>
</tr>
<tr>
<td>4</td>
<td>Woodfordia fruticosa</td>
<td>Flower</td>
</tr>
<tr>
<td>5</td>
<td>Aegle marmelos Correa ex Roxb.</td>
<td>Fruit pulp</td>
</tr>
<tr>
<td>6</td>
<td>Coleus vettiveroides K.C. Jacob / Valeriana jatamansi Jones Syn.: V. wallichii DC.</td>
<td>Root</td>
</tr>
<tr>
<td>7</td>
<td>Symplocos racemosa Roxb.</td>
<td>Stem bark</td>
</tr>
<tr>
<td>8</td>
<td>Pterocarpus santalinus Linn. f.</td>
<td>Heart wood</td>
</tr>
<tr>
<td>9</td>
<td>Cissampelos pareira Linn. (pareira brava)</td>
<td>Root</td>
</tr>
</tbody>
</table>

* Prakşępa Dravya = The fine powder of some fragrant and other ingredients like honey, clarified butter etc. is added to kvatha, which is called Prakşępa Dravya.

3. Therapeutic composition mentioned above is prepared as KVĀTHA (DECOCTION)

Kvātha (decoction) is prepared by boiling powdered plant material with required quantity of water.

A specific quantity of water is retained after boiling, which is then filtered to obtain Kvātha. It is also called Šrta, Niryūha and Kaşāya.

4. A composition as described above is formulated as Decoction / Water extract.

5. The dose of above mentioned therapeutic composition is 24-48 gm.
6. Mode of administration Oral administration.

7. It is useful in the treatment of Diarrhoea with predominance of Ama, Acute diarrhoea, with Colic, Blood dysentery, Acute diarrhoea, with Slimmi, Discharge, and All types, Acute diarrhoea.

**LIST OF DOCUMENTS WITH DATE OF PUBLICATION (PRIOR ART):**

Govinda Dāsa

عطر وفراز
فراز وعطر

جواب شریعت

طلوع نجات بسال بوسیده رضی که سالم تون وگهی کر پذیرف ورین یکی ای شدند بنده مرحوم که از نهایت نیک و منطق الرادیر وایه که رضی کار خواندند سواد سواد که یکی مشتاق که تنها گرفتار نگرفته و بسیاری که به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نزدیک شدند و به او نژ
3.12 அழிபந்தான் அமைப்புச் சொல்லனை

(5) நார் தம்பூ, அதில்லாமல், இன்னர் கிரியை, காசிக்கடி, மீது வளர், அவள், குரு, குறிப்பிட்டு, இல்லையா விளக்கம், 

இன்று, மோடிகர் செய்து பொருள், கால்புறம் திட்டமிக்க மறு

செய்தியான அனைத்தும் கருதுமல்லார்கள். குறிப்பிட்டு அன்பு 

தருணநார் இராம் உதிச் சென்று நாடுகளுக்கு விளங்கி.
92. मधुमेह दमन चूर्ण।

प्रस्तुत-गुड्मार ८ तोले, बिनोले की मींगी ४ तोले, जामुन की गुडलियों की मींगी ४ तोले, सूखे बिल्वपत्र ६ तोले तथा शुष्क निम्बपत्र २ तोले ले।

विधि-सबको क़ूट पीस-कपड़न चूर्ण बनाकर शीशी में भर ले।

मात्रा-२ से ३ मास तक, जल के साथ दिन में २ समय सेवन करें।

उपयोग-इसके सेवन से मधुमेह रोग के कारण उत्पन्न होती रहने वाली शर्करा पर अति शीघ्र काबू हो जाता है, चाहे वह शर्करा केवल मूत्र में ही उत्पन्न हुई हो अथवा उसकी उपस्थिति स्त्रांगत भी हो गई हो। इसके अतिरिक्त यह अग्नियास्य और यकृत के विकारों को दूर कर मधुमेह का दमन भी करती है।

सूचना-यदि वसन्त कुमुडाकर रस के सहयोग से इस चूर्ण का प्रयोग किया जाये तो मधुमेह रोग में निश्चित लाभ होने की आशा है।
Key Attributes of TKDL

Title of Traditional Knowledge Resource

Madhumeha Damana Curna

Knowledge Known Since

50 Years

TKRC CODE:


DETAILS OF PROCESS / FORMULATION:

1. Madhumeha Damana Curna is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s):
   
   Gymnema sylvestre (Retz.) R.Br. ex Schult. (meṣāṃrgi, madhunāśini) (miracle fruit), Gossypium herbaceum Linn. (kārpāsa) (Levant cotton), Syzygium cuminii (Linn.) Skeels (jambū) (jambolan plum, Java plum, kavika ni India, meṣegerak), Aegle marmelos Correa ex Roxb. (bilva) (Indian bael), Azadirachta indica A. Juss. (nimba) (neem)

2. Therapeutic composition / formulation is mentioned below:

   1. Gymnema sylvestre (Retz.) R.Br. ex Schult. (meṣāṃrgi, madhunāśini) (miracle fruit)  
      Leaf  
      96 gm

   2. Gossypium herbaceum Linn. (kārpāsa) (Levant cotton)  
      Seed  
      48 gm
3. Therapeutic composition mentioned above is prepared as CURNA (POWDER). Ingredients mentioned in the formulation are cleaned and dried properly. They are finely powdered and sieved. Where there are multiple ingredients, they are separately powdered and sieved. Each one of them (powder) is weighed separately, and mixed together. In industry, however, all the ingredients are cleaned, dried and powdered together by disintegrators. Mechanical sifters are also used. Salt, sugar, camphor etc., if mentioned are separately powdered and mixed in the end. Asafoetida (Hingu) and salt may also be roasted, powdered and then added. Ingredients, which are to be taken fresh, are made into herbal paste, dried, and then added. Sometimes Bhāvanā (mashing) with Śvarasa (expressed juice of plants) or Kvātha (decoction) etc. is given if indicated in the formulation.

4. A composition as described above is formulated as Powder (cūrna).

5. The dose of above mentioned therapeutic composition is 2-3 gm.

6. It is given with adjuvant of Water (jala/udaka).

7. Mode of administration: Oral administration (auṣadhi pāna).

8. Time of administration 2 Time(s) per day.

9. It is useful in the treatment of Diabetes mellitus (madhumeha).
ب پس

ماس کے خلاف مہند کا مذہب پاکستان کے بند کریں گے اس کے سمت کو کچھ پانچ ہیور زد کی بنا پر

تبہ رہکرها حالیہ مغزہ
Value Addition – Modern Science to TKDL

- Taxonomic Information, citation, synonyms, vernacular names, habitat, geographical information
- Morphological Information
- Cytological Information
- Germplasm Information
- Phytochemistry
- Pharmalogical Information
- Pharmacognostical Information
- Toxicology
- Utilization
COMPONENTS OF BIODIVERSITY DIGITAL LIBRARY

KINGDOM: Plantae
CLASS: Magnoliopsida (Dicotyledons)
FAMILY: Scrophulariaceae
GENUS: Bacopa Aubl.
SPECIES: Bacopa monnieri (Linn.) Penn.

Citation: in Proc. Acad. Nat. Sci. Philad. 98:94, 1946;
Santapau in RBSI. 16(1): 201, 1953.
Status: Abundant
known Since: 1756
TKDL TKRC:
Ploidy level:
Basic No.:
Chromosome No.:

SYNONYMS

LYSIMACHIA MONNIERI LINN. .... Cent. Pl. 2:9, 1756.
MONIERA CUNEIFOLIA MICHX. .... Fl. Bor-Amer. 2: 22, 1803
(Monniera);

VERNACULAR NAMES

English .... Water hyssop
Hindi .... Jalnim, Brahmi; Neem-jal; jal-lep.
Kannada .... Niru brahmi
Malayalam .... Nirbrahmi
Marathi .... Nirbrahmi
Bengali .... Brahma-sak
Sanskrit .... Nira-Brahmi, Manduki
Tamil .... Nirbrahmi,
Telugu .... Sambrani chettu

MORPHOLOGY
3. Chemical Constituent: Betulinic acid (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 11
3. Chemical Constituent: Flavonoids-Apigenin (Active)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 12
3. Chemical Constituent: Cynaroside and Luteolin (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 13
3. Chemical Constituent: Nicotine (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 14
3. Chemical Constituent: Hersaponin (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:
MORPHOLOGY

Habit ..... A spreading or ascending branches, evergreen, fleshy herb. The branches spread on moist ground and forms dense mat
Root ..... Roots are found growing at nodes.
Leaves ..... The leaves oblong-elliptic or spatulate, obtuse, succulent, up to 1.8 x 0.6 cm. club shaped stalkless, and fleshy. The leaves are in bitter tasting.
Flowers ..... Flowers bluish-purple or white with bluish veins, erect, solitary, short or long-pedicellate at the axis of the leaves. The flowers are short lived and colour lightens gradually.
Fruits ..... The fruits are capsules, Ovoid, Glabrous, 4-5 x 3-4 mm.
Seeds ..... The capsules break open to release numerous minute black seeds.
Fruiting period ..... Nov.-Dec.

PHYTOCHEMISTRY

1. Plant Part Used: Leaves
2. CAS Number: 21
3. Chemical Constituent: Sterol (Inactive)
4. Molecular Formula: C26H46O.H2O
5. Molecular Weight:
6. Melting Point: 76

1. Plant Part Used: Whole plant
2. CAS Number: 1
3. Chemical Constituent: Damaranes Bacosides A (2.5-3%) and B (Inactive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 10
1. Plant Part Used: Whole plant
2. CAS Number: 15
3. Chemical Constituent: Herpestine (alkaloid) (Inactive)
4. Molecular Formula: C34H46N2O6
5. Molecular Weight:
6. Melting Point: 116-17

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1. Plant Part Used: Whole plant
2. CAS Number: 16
3. Chemical Constituent: Jujubagenin (Inactive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

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1. Plant Part Used: Whole plant
2. CAS Number: 17
3. Chemical Constituent: Monnerin (Inactive)
4. Molecular Formula: C51H82O21.3H2O
5. Molecular Weight:
6. Melting Point:

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1. Plant Part Used: Whole plant
2. CAS Number: 18
3. Chemical Constituent: Sodium and Potassium salts (Inactive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

---

1. Plant Part Used: Whole plant
2. CAS Number: 19
3. Chemical Constituent: Triterpene-Bacosine (Inactive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 2
3. Chemical Constituent: Hersaponin (Inactive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 20
3. Chemical Constituent: Betulic acid (Inactive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 22
3. Chemical Constituent: Bacoside B (Inactive)
4. Molecular Formula: C41H68O13.5H2O
5. Molecular Weight:
6. Melting Point: 203 (Decomp)

1. Plant Part Used: Whole plant
2. CAS Number: 23
3. Chemical Constituent: Aglycone (Inactive)
4. Molecular Formula: C30H48O4
5. Molecular Weight:
1. Plant Part Used: Whole plant
2. CAS Number: 24
3. Chemical Constituent: Saponins (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 3
3. Chemical Constituent: Monnierin (InActive)
4. Molecular Formula: C51H82021.3H2O
5. Molecular Weight:
6. Melting Point: 262-63

1. Plant Part Used: Whole plant
2. CAS Number: 4
3. Chemical Constituent: Alkaloids Herpestine (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 5
3. Chemical Constituent: Brahmine (InActive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 6
3. Chemical Constituent: Triterpenes (Inactive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 7
3. Chemical Constituent: Flavonoids (Inactive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

1. Plant Part Used: Whole plant
2. CAS Number: 8
3. Chemical Constituent: Bacosides A (Active)
4. Molecular Formula: C41H68O13.4H2O
5. Molecular Weight:
6. Melting Point: 232-34(DECOMP.)

1. Plant Part Used: Whole plant
2. CAS Number: 9
3. Chemical Constituent: Bacogenin (Inactive)
4. Molecular Formula:
5. Molecular Weight:
6. Melting Point:

GEOGRAPHIC DISTRIBUTION

ADILABAD ....
DEHRADUN .... Robers Cave

HABITAT
HABITAT

Marshy, Semi Aquatic,

SOURCE OF ORIGIN

Old Literature .... The Wealth of India; A Dictionary of Raw Materials & Industrial products; NISCOM.CSIR. New Delhi

KNOWLEDGE HOLDERS

Institute .... Khanuja S.P.S

MAIN USAGE

Whole plant .... Improve intellect, The plant is reported to be useful in treating biliousness, inflammations, epilepsy, insanity, tumour, ulcers, flatulence, constipation, asthma, bronchitis, skin diseases, leprosy, lecuderma, sterility, fever and general debility.

GERmplasm INFORMATION

1. Plant Part: Whole plant
2. Institute Name: National Bureau of Plant Genetic Resources (NBPGR), New Delhi
3. Accession Number: 11

1. Plant Part: Whole plant
2. Institute Name: National Institute of Science Communication And Information Resources (NISCAIR), New Delhi.
3. Accession Number: 100

PHARMACOLOGICAL INFORMATION

Plant Parts used as Drug: LEAVES
1. Drug Form: Paste
2. Test Model: External
3. Dosage:
4. Drug Description:
5. Mode of administration:
6. Mode Of Action:
   REMEDY FOR RHEUMATISM
   The paste of leaves is used for rheumatism

   Plant Parts used as Drug:  WHOLE PLANT
   1. Drug Form: Extract
   2. Test Model: Learning Performance
   3. Dosage:
   4. Drug Description: Saponin; Bcoside A & B.
   5. Mode of administration:
   6. Mode Of Action:
   THERAPEUTIC
   Treatment with plant extract improve maze learning in rats.

   Plant Parts used as Drug:  WHOLE PLANT
   1. Drug Form: Mixture
   2. Test Model: Dose administered on cat
   3. Dosage: 0.5mg/kg
   4. Drug Description: Brahmine
   5. Mode of administration: Different dose
   6. Mode Of Action:
   THREPTIC
   Brahmine is highly toxic; when administered at a dose of 0.5 mg/kg body wt. of cat, it produse a fall in blood pressure.

PHARMACOGNISTICAL INFORMATION

   Plant Part used:  WHOLE PLANT
   1. Macroscopic Characters: Herb -- Creeping, glabrous, succulent herb, rooting at nodes; stem-thick, soft, glabrous, branches ascending. Leaves-Sessile, ovate-oblong or spatulate, entire, nerves obscure and lower surface dotted with black specks; Flower- Blue or white with purple veins, axillary and solitary on long pedicels. Capsules - Ovoid, slabrous
   2. Microscopic Characters: Leaf-More or less isobilateral structure; epidermis with striated cuticle;
2. Microscopic Characters: Leaf—More or less isobilateral structure; epidermis with striated cuticle; stomata on both surfaces; epidermal cells have walls and glandular hairs on both surfaces, smaller on conical stalk and larger with 8-celled head; few prismatic crystals of Ca.Oxalate in mesophyll; no distinct midrib present; vascular bundles surrounded by bundle sheaths. Distinct bundle sheath surrounds vascular bundle of midrib. Transverse section shows lack of differentiation of mesophyll in the palisade and spongy layers. Both the epidermii show anisocytic type of stomata and glandular hairs.
3. Powder Characters:
4. Histochemical Characters:
5. Drug Description: Crude drug
6. Organoleptic Characters:
7. Chemical Components: Bacoside A (2.5 - 3%), Bacoside B and other bacosides, Hersaponin, Betulic acid, Monnierin, Alkaloids - Brahmine(0.01 - 0.02%) and Herpestine; Flavonoids; Saponin, D-mannitol, Nicotine, Saponins-Monierin, Sapogenins-Bacogenin A1-A4. Bacosine
8. Finger Printing:

Plant Part used: LEAVES
1. Macroscopic Characters: Obovate-oblong or spatulate, obtuse, succulent, entire nervous obscure and lower surface dotted with black specks.1.8 X 0.6 cm.
2. Microscopic Characters: Leaf more or less isobilateral structure; epidermis with striated cuticle; stomata on both surface; epidermal cells have wavy walls and glandular hairs on both surfaces, smaller on conical stalk and larger with 8-celled head; few prismatic crystals of Ca. Oxalate in mesophyll; no distinct midrib present; vascular bundle surrounded by bundle sheaths.
3. Powder Characters:
4. Histochemical Characters: Transverse section shows lack of differentiation of mesophyll in the palisade and spongy layers.
5. Drug Description: Crude drug
6. Organoleptic Characters:
7. Chemical Components: Bacoside A, Bacoside B, Brahmine
8. Finger Printing:

TOXICOLOGICAL INFORMATION
DIGITAL HERBARIUM

1. Name Of Institute: National Institute of Science Communication And Information Resources, (NISCAIR), New Delhi.
2. Field Number: 2
3. Accession Number: 2
4. Barcode: |||563789|||
5. Date of Collection: 10/11/04
6. Local Name: Brahmi
7. Locality: Niscair
8. Collected By: Dr T. K. Mukherjee
9. Identified By: Dr. Bala Subramaniam

Name Of Institute: National Institute of Science Communication And Information Resources, (NISCAIR), New Delhi.
Field Number: 1
Accession Number: 1
Barcode: ||||1890|||
Date of Collection: 10/11/04
Local Name: Brahmi
Locality: Patel Nagar
Collected By: Dr. Bala Subramaniam
Identified By: Dr. H.B.Singh

Name Of Institute: National Institute of Science Communication And Information Resources, (NISCAIR), New Delhi.
Field Number: 3
Accession Number: 3
Barcode: |||2345|||25
Date of Collection: 10/11/04
Local Name: Brahmi
Locality: Patel Nagar
Collected By: Dr H.B.Singh
Identified By: Dr T.K.Mukherjee
9. Identified By: Dr T.K. Mukherjee

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(12) INDIAN J. PHARM., Chopra et al., 1956, 18, 369
(13) WOI, Anonymous
(14) WOI, Anonymous, 1988, 2: B, 2
(15) WOI, Anonymous, 1988, 2: B (Revised), 2
(16) WOI, Anonymous, 1988, 2:B, 2
(17) WOI, Anonymous, 1988, 2:B (Revised), 2
(18) WOI, Anonymous, 1988, 2:B (Revised), 3
Bacopa monnieri
Citrullus colocynthis

Indravāruṇi  Citrullus colocynthis (Linn.) Schrad.
Alternanthera Sessilis
Acorus calamus
Piper longum
بیاضیہ پیر

حققد روک

حمب جعفر

میں بزدار کو لکھ نہیں تیںسیسی۔ میں ازرک بار کہی بارہ بہت بلند

کو بنا سکتا ہوں۔ بگڑنے کے مکالمہ احسنت جال اس کا سبھائیجا

تو انضام میں ہے۔ چونکہ براہما کے بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھی بھیب
Key Attributes of TKDL

Title of Traditional Knowledge Resource

<table>
<thead>
<tr>
<th>Resource</th>
<th>Knowledge Known Since</th>
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<tbody>
<tr>
<td>Habb-e-bukhar</td>
<td>50 Years</td>
</tr>
</tbody>
</table>

TKRC CODE:


IPC Code:

A61K 36/48, A61K 36/59, A61K 36/899, C01B 5/00, A61P 29/00, A61P 33/06, A61P 33/00, A61P 29/00, A61P 29/00, A61P 43/00

DETAILS OF PROCESS / FORMULATION:

1. **Habb-e-bukhar** is a therapeutic single / compound formulation consisting of useful parts of following ingredient(s): Bambusa arundinacea (Retz.) Roxb. Syn. B. bambos Voss (bamboo), Acacia arabica Willd., Tinospora cordifolia Miers (tinospora), Water

2. Therapeutic composition / formulation is mentioned below:

   1. Bambusa arundinacea (Retz.) Roxb. Syn.: B. bambos Voss (bamboo)  
      Exudate 12 gm

   2. Acacia arabica Willd.  
      Exudate 3 gm

   3. Tinospora cordifolia Miers (tinospora)  
      Stem 6 gm
4. Water

3. Therapeutic composition mentioned above is prepared as HUBOOB Huboob (pills) are medicinal preparations made by mixing powdered drugs in a suitable binder (Water/Oil/Resin of plant) and made into round and uniformly shaped balls of the required size. To avoid the sticking of the lubdi during the rolling between the fingers lubricants like Raughan Zard or Raughan-e-Kunjad is applied.

4. A composition as described above is formulated as Pills.

5. The dose of above mentioned therapeutic composition is 1-2 Pills.


7. Time of administration: Morning, Afternoon, and In the evening.

8. It is useful in the treatment of seasonal fever, Malaria / Intermittent fever, and used for prevention of Fever/Pyrexia

LIST OF DOCUMENTS WITH DATE OF PUBLICATION (PRIOR ART):

Kabiruddin Bayaz-e- Kabir Volume II prior art Page 33
1. Asthma/allergy therapy using nigella sativa;
2. Method of treatment or management of stress;
3. Hydroxylated Polymethoxyflavone Compositions;
4. Agents for sequestering serum aging factors and uses thereof;
5. Cosmetic herbal compositions;
6. Composition and method for facilitating the healing of non-healing and slow-healing wounds and ulcerations;
7. Compositions for diabetes treatment and prophylaxis
8. Bioactive compositions from theacea plants and processes for their production and use;
9. Compositions of bakuchiol and methods of making the same
10. Methods Of Treating Epiphora
### Japan - Total No. of Application 5

1. Anti-Inflammatory Agent;
2. Skin aging-preventing or improving agent;
3. Sleep-Improving Composition;
4. Composition for treating hepatitis c;
5. Senescence Inhibitor

### Great Britain - Total No. of Application 3

1. Treatment of inflammatory bowel disease
2. Polyphenol Extraction Process
3. Method and system for producing medicinal alcohol as a prophylactic or remedy for cancer, HIV, AIDS and autoimmune diseases
Italy - Total No. of Application 3

1. A process for the preparation of ferutinine from ferula genus plants
2. Cancer treatment using natural plant products or essential oils or components from some pistacia species
3. Methods and composition for treating sore throat

Germany - Total No. of Application 2

1. Use of preparations, purifications and extracts of aloe
2. Skin treatment composition
Citation from TKDL references through Third Party Observations

India - Total No. of Application 2
1. Biotherapeutics for mitigation of health disorders from terminalia arjuna
2. Process for producing enriched fractions of tetrahydroxycurcumin and tetrahydrotetrahydroxy-curcumin from the extracts of curcuma longa

Netherlands - Total No. of Application 1
1. Functional berry composition

New Zealand - Total No. of Application 1
1. A Composition for the treatment of Skin Diseases.
<table>
<thead>
<tr>
<th>Country</th>
<th>Total No. of Application</th>
<th>Application Details</th>
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<tbody>
<tr>
<td>Australia</td>
<td>1</td>
<td>Cysteine protease from ginger (zingiber) as a food improver and anti-inflammatory</td>
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<tr>
<td>China</td>
<td>1</td>
<td>Medicaments and food for treatment or prevention of obesity and/or diabetes containing cicer arietinum extract</td>
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<tr>
<td>Cyprus</td>
<td>1</td>
<td>Treatment and prevention of inflammation</td>
</tr>
<tr>
<td>Kenya</td>
<td>1</td>
<td>Herbal compositions for treatment of diabetes</td>
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<td>Country</td>
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<td>Application</td>
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<td>------------------</td>
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<td>-------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Spain</td>
<td>1</td>
<td>Natural product in cream with anti-vitiligo therapeutic properties</td>
</tr>
<tr>
<td>South Korea</td>
<td>1</td>
<td>Nelumbinis semen extract for preventing and treating ischemic heart disease and pharmaceutical composition and health food containing the same</td>
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<tr>
<td>Bulgaria</td>
<td>1</td>
<td>Therapeutical composition for the treatment of dermatosis comprising an extract of calendula officinalis and hypericum perforatum</td>
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1. Method for altering the metabolism characteristic of food products
## Normal oppositions i.e. without TKDL and TKDL Access Agreement

<table>
<thead>
<tr>
<th>EPO PATENT NO: EP436257- (Neem)</th>
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<tbody>
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<td><strong>Title</strong></td>
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<tr>
<td><strong>Applicant &amp; Country</strong></td>
</tr>
<tr>
<td><strong>Date of Filing</strong></td>
</tr>
<tr>
<td><strong>Date of Grant</strong></td>
</tr>
<tr>
<td><strong>Date of Opposition</strong></td>
</tr>
<tr>
<td><strong>Opposed by</strong></td>
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<tr>
<td><strong>Final Rejection</strong></td>
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<tr>
<td><strong>Period between Grant &amp; Rejection</strong></td>
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# Normal oppositions i.e. without TKDL and TKDL Access Agreement

**US PATENT NO: 5894079- (Enola Beans)**

<table>
<thead>
<tr>
<th>Title</th>
<th>Field bean cultivar named enola</th>
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<tr>
<td>Applicant &amp; Country</td>
<td>LARRY M. PROCTOR, DELTA, CO. USA</td>
</tr>
<tr>
<td>Date of Filing</td>
<td>15 November 1996</td>
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<tr>
<td>Date of Grant</td>
<td>13 April 1999</td>
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<tr>
<td>Date of Opposition</td>
<td>20 December 2000</td>
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<tr>
<td>Opposed by</td>
<td>International Center for Tropical Agriculture</td>
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<tr>
<td>Rejection at USPTO</td>
<td>2008</td>
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<tr>
<td>Rejection at US Federal Court</td>
<td>10 July 2009</td>
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<td>Period between Grant &amp; Rejection</td>
<td>10 Years</td>
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<tr>
<td><strong>Title</strong></td>
<td>Particle-mediated transformation of soybean plants and lines</td>
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<tr>
<td><strong>Applicant &amp; Country</strong></td>
<td>Monsanto Company, 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, USA</td>
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<tr>
<td><strong>Date of Filing</strong></td>
<td>20 July 1988</td>
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<td><strong>Date of Grant</strong></td>
<td>02 March 1994</td>
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<td><strong>Date of Opposition</strong></td>
<td>6 October 1994</td>
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<tr>
<td><strong>Opposed by</strong></td>
<td>Rural Advancement Foundation International (Canada)</td>
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<td><strong>Final Rejection</strong></td>
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**EPO PATENT APPLICATION NO: EP1520585**
*(Anti Cancer - Pistacia Vera)*

<table>
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<tr>
<th><strong>Title</strong></th>
<th>Cancer treatment using natural plant products or essential oils or components from some pistacia species</th>
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<tr>
<td><strong>Applicant &amp; Country</strong></td>
<td>DATA MEDICA PADOVA S P A, Italy</td>
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<tr>
<td><strong>Date of Filing</strong></td>
<td>24 September 2004</td>
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<tr>
<td><strong>Date of intention to grant</strong></td>
<td>19 February 2009</td>
</tr>
<tr>
<td><strong>Date of Third Party observation</strong></td>
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<td><strong>Notice setting aside Intention to grant</strong></td>
<td>14 July 2009</td>
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**Impact of TKDL & TKDL Access Agreement at EPO**

<table>
<thead>
<tr>
<th><strong>EPO PATENT APPLICATION NO:</strong> EP1747786 (Anti-Vitiligo Cream)</th>
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<tbody>
<tr>
<td><strong>Title</strong></td>
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<tr>
<td><strong>Applicant &amp; Country</strong></td>
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<tr>
<td><strong>Date of Filing</strong></td>
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<td><strong>Date of Intention to grant</strong></td>
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<td><strong>Date of Third Party observation</strong></td>
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<td><strong>Notice setting aside Intention to grant</strong></td>
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<tr>
<td><strong>Period between Third Party observation and setting aside Intention to grant</strong></td>
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### EPO PATENT APPLICATION NO: EP1607006

**Cardio Vascular Tonic**

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<tr>
<th>Title</th>
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<tr>
<td>Applicant &amp; Country</td>
<td>UNILEVER NV, Netherlands</td>
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<tr>
<td>Date of Filing</td>
<td>18 June 2004</td>
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<td>Date of Third Party observation</td>
<td>09 July 2009</td>
</tr>
<tr>
<td>Application deemed to be withdrawn</td>
<td>04 August 2009</td>
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<td>Period between Third Party observation and withdrawal of application by applicant</td>
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# Impact of TKDL & TKDL Access Agreement at EPO

<table>
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<tr>
<th>EPO PATENT APPLICATION NO: EP1781309</th>
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<tr>
<td>Composition for Heart Disease and Health Products</td>
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<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Nelumbinis semen extract for preventing and treating ischemic heart disease and pharmaceutical composition and health food containing the same</th>
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</thead>
<tbody>
<tr>
<td><strong>Applicant &amp; Country</strong></td>
<td>Purimed Co., Ltd. Seoul, Korea</td>
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<tr>
<td><strong>Date of Filing</strong></td>
<td>09-June-2005</td>
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<td><strong>Date of Third Party observation</strong></td>
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## Impact of TKDL & TKDL Access Agreement at EPO

<table>
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<th>EPO PATENT APPLICATION NO: EP2044850</th>
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<td>(Method for altering the Metabolism Characteristic of Food Products )</td>
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<table>
<thead>
<tr>
<th>Title</th>
<th>Method for altering the Metabolism Characteristic of Food Products</th>
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<tr>
<td>Applicant &amp; Country</td>
<td>CLARA S APS, DENMARK</td>
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<tr>
<td>Date of Filing</td>
<td>19-Sept-2007</td>
</tr>
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<td>Date of Third Party observation</td>
<td>12-August-2009</td>
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<tr>
<td>Applicant withdraw his application</td>
<td>30-Oct-2009</td>
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<td>Period between Third Party observation and setting aside Intention to grant</td>
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### EPO PATENT APPLICATION NO: EP1906980
(_method of treatment or management of stress)

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<th>Title</th>
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<tr>
<td>Applicant &amp; Country</td>
<td>NATREON INC, USA</td>
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<td>Date of Filing</td>
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<td>Date of Third Party observation</td>
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<td>EPO Examination Report</td>
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Communication under Rule 71(3) EPC

You are informed that the Examining Division intends to grant a European patent on the basis of the above application with the text and drawings as indicated below:

IV.3. Title of the invention

The title indicated on the published patent application remains unchanged. It reads as follows:

Natürliches Produkt in Cremeform mit Anti-Vitiligo therapeutischen Eigenschaften

Natural product in cream with anti-vitiligo therapeutic properties

Produit naturel crèmeux avec des qualités anti-vitiligo

IV.4. Documentation
**BRIEF COMMUNICATION**

Subject:  
☐ Your letter of  
☐ Our telephone conversation of  
☑ Communication under Rule 71(3) EPC dated 04.06.2009  
☑ Resumption of substantive examination

The communication under Rule 71(3) EPC is set aside. In accordance with Guidelines C-VI, 14.5 substantive examination is to be resumed because

☐ one of the exceptions of Guidelines C-VI, 14.4.1 applies.

☒ the Examining Division has become aware of circumstances which are such as to render non-patentable the subject-matter claimed (Guidelines C-VI, 4.11), e.g. following observations by third parties under Article 115 EPC or because the applicant has filed further prior art.
The Examining Division has become aware of new prior art (Third Party Observation under Article 115 of the EPC).

The application claims the usefulness of a combination of five constituents for the treatment of vitiligo, one of these constituents being a 1:2 watery extract of *Cucumis melo* containing catalase and superoxide dismutase.

However, *Cucumis Melo* has been known for its anti-vitiligo property through local application in the Indian system of medicine, since long, as is evident e.g. from the *Exhibits 1-5 (TKDL abstracts)* as cited in the Third Party Observation under Art. 115 EPC.

Hence, if one ingredient, here *Cucumis melo*, was already known for the treatment of vitiligo, then it had to be expected necessarily in an obvious manner that also a combination product comprising this known active ingredient must be effective for treating vitiligo.

Thus, as long as no surprising (superior) effect of the claimed combination product vis-à-vis the already known products comprising *Cucumis melo*, as described in the *Exhibits 1-5* and in D 2, are shown by the Applicant (for instance in the form of additional technical data), inventive merits under Article 56 EPC cannot be acknowledged.
Modiano, Micaela Nadia
Dr. Modiano & Associati SpA
Via Meravigli 16
20123 Milano
ITALIE

<table>
<thead>
<tr>
<th>Application No.</th>
<th>Ref.</th>
<th>Date</th>
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<tr>
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<td>39456/GMtp</td>
<td>19.02.2009</td>
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</table>

Applicant
Data Medica Padova S.p.A.

Communication under Rule 71(3) EPC

You are informed that the Examining Division intends to grant a European patent on the basis of the above application with the text and drawings as indicated below:

**IV.3. Title of the invention**

The title indicated on the published patent application remains unchanged. It reads as follows:

Behandlung von Krebs mit natürlichen Pflanzenprodukten, etherischen Ölen oder Inhaltsstoffen von Pistazia Arten

Cancer treatment using natural plant products or essential oils or components from some pistacia species

Traitement du cancer avec des produits naturels de plantes, avec des huiles essentielles ou avec des composants à partir d’espèces de pistacia

**IV.4. Documentation**

Date: 30.01.09

Chairman: Giacobbe, Simone
1st examiner: Boris, Mark
2nd examiner: Damiani, Federica
Setting aside Intention to grant

Modiano, Micaela Nadia
Dr. Modiano & Associati SpA
Via Meravigli 16
20123 Milano
ITALIE

Application No.
04 022 793.6 - 2123

Ref.
39456/GM/p

Date
14.07.2009

Applicant
Data Medica Padova S.p.A.

Communication pursuant to Article 94(3) EPC

The examination of the above-identified application has revealed that it does not meet the requirements of the European Patent Convention for the reasons enclosed herewith. If the deficiencies indicated are not rectified, the application may be refused pursuant to Article 97(2) EPC.

You are invited to file your observations and insofar as the deficiencies are such as to be rectifiable, to correct the indicated deficiencies within a period of 4 months from the notification of this communication, this period being computed in accordance with Rules 126(2) and 131(2) and (4) EPC. One set of amendments to the description, claims and drawings is to be filed within the said period on separate sheets (R. 50(1) EPC).

Failure to comply with this invitation in due time will result in the application being deemed to be withdrawn (Art. 94(4) EPC).
The examination is being carried out on the **following application documents**:

A 3rd party observation has been filed on 24 June 2009 together with nine exhibits of TKDL abstracts. These exhibits seem to disclose the use of Pistacia lentiscus (exhibit 1-6, 8-9) and of Pistacia vera (exhibit 7) for the treatment of cancer.

The exhibits, in particular exhibit 7, appear pertinent to novelty and inventive step (Article 54 and 56 EPC) of the claims. The Applicant is requested to take position.
Communication pursuant to Rule 114(2) EPC

Please find enclosed observations by a third party concerning the patentability of the invention of the above-mentioned patent application. That person is not a party to the proceedings before the EPO (Art. 115 EPC).

Under Rule 114(2) EPC you may comment on the observations.
Deemed Withdrawn by Applicant

Joppe, Hermina Laura Petronella
Unilever Patent Group
Olivier van Noortlaan 120
3133 AT Vlaardingen
PAYS-BAS

Date: 04-08-2009

<table>
<thead>
<tr>
<th>Reference</th>
<th>Application No./Patent No.</th>
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<td>F7775(V)</td>
<td>04075795.6 - 2114 / 1607006</td>
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<th>Applicant/Proprietor</th>
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<tr>
<td>Unilever N.V., et al</td>
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</tbody>
</table>

Noting of loss of rights pursuant to Rule 112(1) EPC

The European patent application is deemed to be withdrawn under article 94(4) EPC, because the invitation to file observations on the communication from the examining division was not complied with.

Means of redress

Request for a decision (R. 112(2) EPC)
If the applicant considers that the finding of the European Patent Office is inaccurate, he may, within a (non-extendable) period of two months after notification of this communication, apply in writing for a decision on the matter. The application can only lead to the finding being reversed if this does not actually correspond to the factual or legal situation.

Further processing (Art. 121 EPC)
The legal consequence of the failure to observe the time limit shall be deemed not to have ensued if, within a (non-extendable) period of two months after notification of this communication, further processing is requested by payment of the fee prescribed under Article 2(12) of the Rules relating to Fees and the omitted act is completed (R. 135(1) EPC).

Important note to users of the automatic debiting procedure
The fee for further processing will be debited automatically on the day on which the above-mentioned omitted act is completed (see Arrangements for the automatic debiting procedure, Supplement to OJ EPC 3/2009).
Communication pursuant to Rule 114(2) EPC

Please find enclosed observations by a third party concerning the patentability of the invention of the above-mentioned patent application. That person is not a party to the proceedings before the EPO (Art. 115 EPC).

Under Rule 114(2) EPC you may comment on the observations.
Loehr, Georg  
Loehr, Jostenmeier & Partner  
Patent- und Rechtsanwälte  
Junkersstrasse 3  
82178 Puchheim  
ALLEMAGNE

Closure of the procedure in respect of application No. 05765041.8 - 2123  
18.09.09

1. The procedure in respect of the above application is closed for the following reason:

✓ ADWI  11/24.06.09  The time limit under Rule 112(2) EPC has expired.  
No request for a decision under Rule 112(2), or for further processing under Article 121 EPC or for re-establishment of rights under Article 122 EPC has been filed.
Communication pursuant to Rule 114(2) EPC

Please find enclosed observations by a third party concerning the patentability of the invention of the above-mentioned patent application. That person is not a party to the proceedings before the EPO (Art. 115 EPC).

Under Rule 114(2) EPC you may comment on the observations.
Deemed Withdrawn by Applicant

EPO - Munich
73
03. Nov. 2009

European Patent Office
D-80299 München
Tyskland

DATE: Fri October 30, 2009
OUR REF: 00460-EP-F
YOUR REF:

1 page per telefax in advance: +49 89 2399 4465

METHOD FOR ALTERING THE METABOLISM CHARACTERISTIC OF FOOD PRODUCTS
European Patent Application No. 07019358.5

Dear Sirs,

We herewith withdraw the application.

We also refer to our letter dated October 23, 2009 requesting a refund of the examination and designation fees.

Yours very truly,
Nordic Patent Service (Professional Association No. 338)

John Hård
European Patent Attorney
Communication pursuant to Rule 114(2) EPC

Please find enclosed observations by a third party concerning the patentability of the invention of the above-mentioned patent application. That person is not a party to the proceedings before the EPO (Art. 115 EPC).

Under Rule 114(2) EPC you may comment on the observations.
D10: DATABASE TKDL "Asvagandhi Yoga" retrieved from TKDL
Database accession no. AK11/4074
D11: DATABASE TKDL "Asvagandhi Curna" retrieved from TKDL
Database accession no. RG12/1062
D12: DATABASE TKDL "Parangi Chooranam - 7" retrieved from TKDL
Database accession no. AM05/1804
D13: DATABASE TKDL "Aswaganthathy Chooranum" retrieved from TKDL
Database accession no. SP01/75
D14: DATABASE TKDL "Vaayu Thiratchiku Mezhugu" retrieved from TKDL
Database accession no. AM05/1838
D15: DATABASE TKDL "Safoof -e- Asgandh 1" retrieved from TKDL
Database accession no. NA2/108V
D16: DATABASE TKDL "Amukkara Karpam" retrieved from TKDL Database
accession no. PD04/54
D17: DATABASE TKDL "Phalasava" retrieved from TKDL Database
accession no. RS21/797
3.10 The document D10 is an entry of the Traditional Knowledge Digital Library which refers to a composition comprising Withania somnifera root powder, a product of sugarcane and clarified butter. This composition is useful for the treatment of insomnia.

The Search Authority considers that the Withania somnifera extract used in this composition will comprise withanolide glycosides, oligosaccharides and withanolide aglycones since this compounds are naturally present in Withania somnifera roots.

Insomnia is considered to be a chronic stress disorder.
Clarified butter is considered to comprise fatty acids and vitamins.

In the light of this document, the subject-matter of claims 1-4, 6-7, 10-11, 13-17, 20-26, 28 and 29 cannot be considered as novel (Article 54 EPC).

3.11 The document D11 is an entry of the Traditional Knowledge Digital Library which discloses a therapeutic composition for the treatment of insomnia which comprises a root extract from Withania somnifera and a root extract from Argyeria nervosa (a plant extract). Said composition can be administered together with milk or water and is thus considered to fulfil the definition of a beverage.

The Search Authority considers that the Withania somnifera extract used in this composition will comprise withanolide glycosides, oligosaccharides and withanolide aglycones since this compounds are naturally present in Withania somnifera roots.

Insomnia is considered to be a chronic stress disorder.

In the light of D11, the subject-matter of claims 1-4, 6-11, 13-17, 20-26, 28 and 29 cannot be considered as novel in the sense of Article 54 EPC.
3.12 Documents D12, D13 and D16 are entries of the **Traditional Knowledge Digital Library** which disclose therapeutic compositions comprising a Withania somnifera root extract together with other plant extracts for the treatment of gastric ulcers or acute gastritis. The composition is in the form of a powder.

The Search Authority considers that the Withania somnifera extract used in these compositions will comprise withanolide glycosides, oligosaccharides and withanolide aglycones since this compounds are naturally present in Withania somnifera roots.

Gastric ulcers are considered to be chronic stress disorders.

Therefore, the subject-matter of claims 1-4, 6-7, 11-17, 20-26, 28 and 29 cannot be considered as novel (Article 54 EPC).

3.13 The document D14 is an entry of the **Traditional Knowledge Digital Library** which discloses a therapeutic composition for the treatment of gastric ulcers and acute gastritis comprising numerous plant extracts. One of these extracts is a Withania somnifera root extract. The composition further comprises garlic extracts. The composition is waxy.

The Search Authority considers that the Withania somnifera extract used in this composition will comprise withanolide glycosides, oligosaccharides and withanolide aglycones since this compounds are naturally present in Withania somnifera roots.

Gastric ulcers are considered to be chronic stress disorders.

Therefore, the subject-matter of claims 1-4, 6-7, 11-17 and 20-30 cannot be considered as novel (Article 54 EPC).
3.14 The document D15 is an entry of the Traditional Knowledge Digital Library which discloses a therapeutic composition for the treatment of restlessness and depression comprising Withania somnifera bark, leaf, flower, fruit and root extracts, Terminalia bellirica root extract and a sugar cane product. The composition is formulated as a powder. The Search Authority considers that the Withania somnifera extract used in this composition will comprise withanolide glycosides, oligosaccharides and withanolide aglycones since this compounds are naturally present in Withania somnifera roots.

Restlessness and depression are considered to be chronic stress disorders.

Therefore, the subject-matter of claims 1-4, 6-7, 10-11, 13-17, 20-26, 28 and 29 cannot be considered as novel over the teaching of D15 (Article 54 EPC).

3.15 The document D17 is an entry of the Traditional Knowledge Digital Library which discloses a therapeutic composition for the treatment of hyperacidity and insomnia comprising numerous plant extracts including a Withania somnifera root extract. The composition is in the form of a fermented alcoholic product and fulfil the definition of a beverage or elixir. The Search Authority considers that the Withania somnifera extract used in this composition will comprise withanolide glycosides, oligosaccharides and withanolide aglycones since this compounds are naturally present in Withania somnifera roots.

Hyperacidity and insomnia are considered to be chronic stress disorders.

Therefore, the subject-matter of claims 1-11, 13-17, 20-26, 28 and 29 cannot be considered as novel over the teaching of D17 (Article 54 EPC).