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CAPACITY
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L'INITIATIVE DE
RENFORCEMENT
DES CAPACITES
POUR L'**APA**

DSI in UN fora and negotiations

**Understanding DSI:
a technical overview of its production, distribution and use
01.12.2020, Webinar Series SCBD – ABS Initiative**

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ABS Capacity Development Initiative

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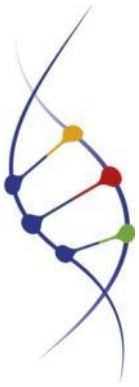
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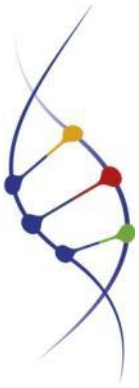
Content



DSI in UN fora and negotiations

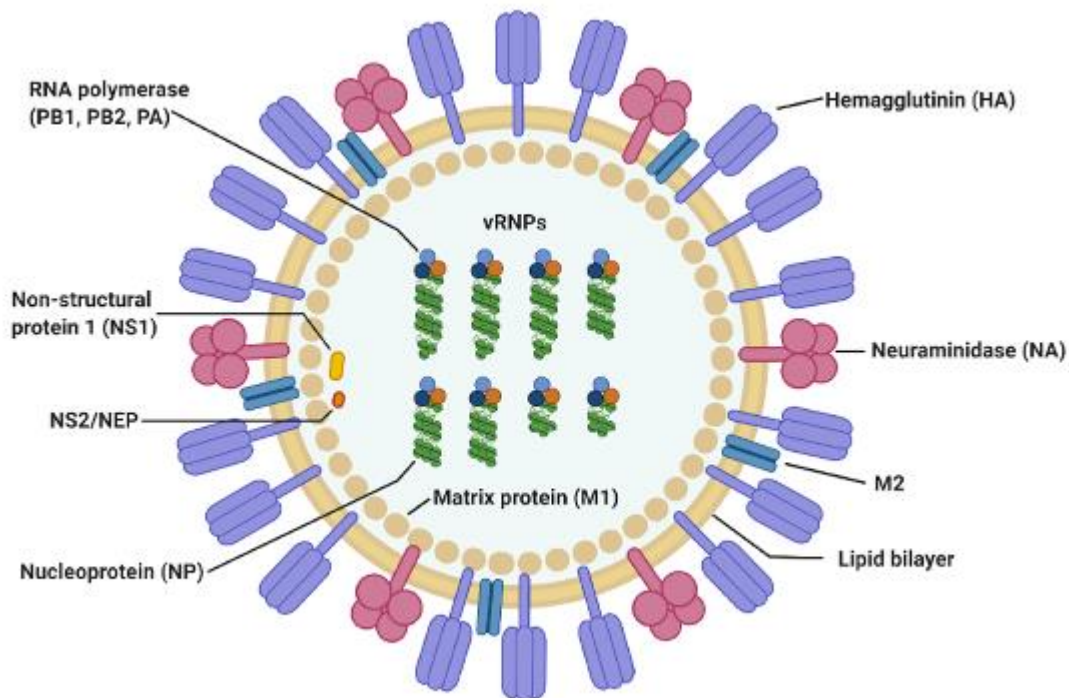
- **Biology, DSI and UN negotiations**
 - **Biology background of debate in WHO, FAO and CBD**
- **Overview about negotiations and discussions in**
 - **CBD**
 - **FAO ITPGRFA**
 - **FAO CGRFA**
 - **WHO PIP Framework**
 - **UNCLOS BBNJ**

Biology, DSI and UN Negotiations

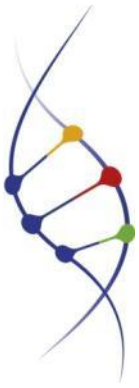


WHO Pandemic Influenza Preparedness Framework

- Covers influenza viruses with pandemic potential and production of vaccines
- Viruses consist of RNA or DNA, a few proteins proteins and lipids



Biology, DSI and UN Negotiations



FAO International Treaty on Plant Genetic Resources for Food and Agriculture

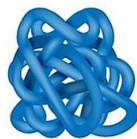
- Covers plants when used for food and agriculture
- In the context of DSI, main focus is plant selection and breeding (identifying genes, analysing genomes, understanding patterns of heredity as well as recombination and engineering of genes)
- Other topics are e.g. nutritional values, agricultural practices, farmers' rights



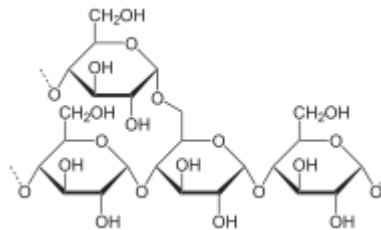
The International Treaty
ON PLANT GENETIC RESOURCES
FOR FOOD AND AGRICULTURE



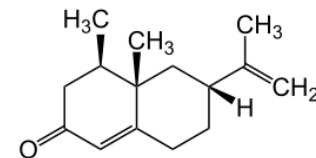
DNA



Proteins

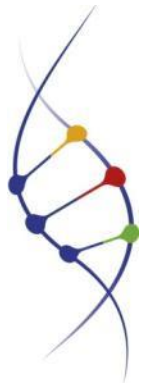


Starch
all plants
energy component



Nootkatone
Citrus plants
food aroma

Biology, DSI and UN Negotiations



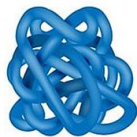
FAO Commission on Genetic Resources for Food and Agriculture

- Covers animals, fungi and bacteria when used for food and agriculture
- In the context of DSI, main focus is selection and breeding (identifying genes, analysing genomes, understanding patterns of heredity as well as combination and engineering of genes)
- Other topics are e.g. nutritional values, agricultural practices, fermentation technologies

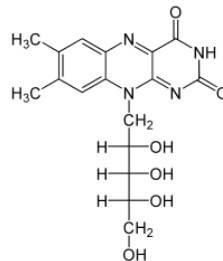
Commission on Genetic Resources for Food and Agriculture



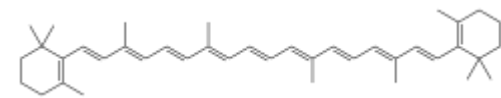
DNA



Proteins



Riboflavine (Vit B2)
many organisms



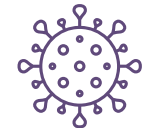
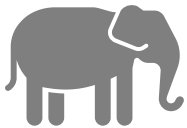
beta-Carotene (pre-Vit A)
many organisms

Biology, DSI and UN Negotiations

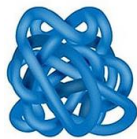


Convention on Biological Diversity / Nagoya Protocol

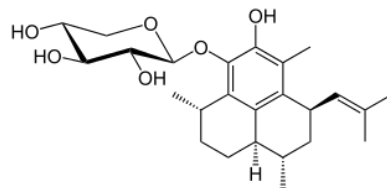
- Covers all organisms and viruses for any use
- Main focus in the context of DSI is on various applications in taxonomy, ecology, physiology, genetics, industrial biotechnology, cosmetics, drug development
- Discussion also covers traditional knowledge of indigenous peoples and local communities



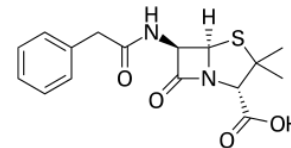
DNA



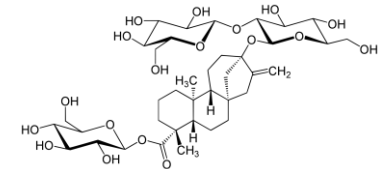
Proteins



Pseudopteriosin A
Pseudopterogorgia soft coral
Cosmetics

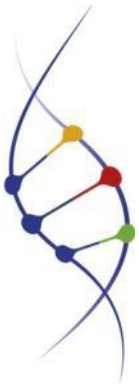


Penicillin G
Penicillium molds
Antibiotics



Stevioside
Stevia plant
(Traditional) Sweetener

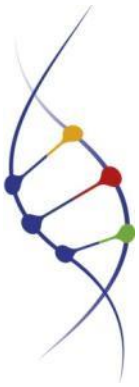
DSI in CBD



Negotiations from 2016 - 2020

- 2016:** **COP-13** raised the issue, decided to analyse implications of DSI on three objectives of the CBD
- 2017:** **53 submissions of views** by Parties and others
- 2018:** **Study and AHTEG 1** on fact-finding and scoping with 40 responses
- 2018:** **COP-14** decided to “establish a science and policy-based process” on DSI elaborating recommendations to COP 15 on how to address DSI in the post-2020 global biodiversity framework
- 2019:** **38 submissions of views** by Parties and others
- 2020:** **4 studies** (concepts & scope, traceability, databanks, domestic measures) with up to 25 responses
- 2020:** **AHTEG 2** on operational terms

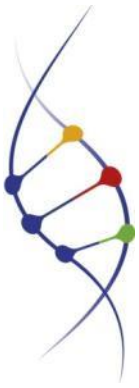
DSI in ITPGRFA



Negotiations from 2017 - 2019

- 2017: GB-7** discussed DSI in the context of revising the Standard Material Transfer Agreement (SMTA), proposal for new definition of “genetic parts and components” was not accepted, decided to consider implications of DSI on the objectives of the ITPGRFA
- 2017: Scoping study** on implications of new synthetic biology and genomic research trajectories on the ITPGRFA
- 2018/9: OEWG-8 and -9** on the Multilateral System discussed DSI at three meetings, DSI mentioned in various parts of the draft revised SMTA, but no agreement
- 2019: GB-8** decided to continue the collaboration with CBD on DSI to “promote coherence and mutual supportiveness between the respective conventions and implementing processes”

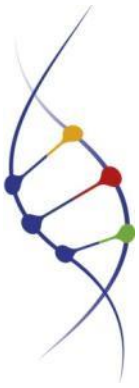
DSI in CGRFA



Work stream from 2017 - 2019

- 2017: Regular Session-16** established of work stream on DSI on GRFA, but no text-based negotiations of international agreements
- 2018: Exploratory fact-finding scoping study** on the implications of the use of DSI on GRFA for the conservation and sustainable use of GRFA, including exchange, access and the fair and equitable sharing of the benefits arising from their use
- 2018: 12 submissions of views** by Parties and others on the use of DSI on GRFA
- 2019: Regular Session-17** agreed on further review of DSI, requested its intergovernmental technical working groups to address opportunities, challenges and implications on conservation, sustainable use and benefit sharing

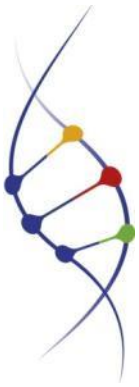
DSI in WHO PIP Framework



Discussions from 2015 - 2017

- 2015:** **Technical Working Group on the sharing of influenza genetic sequence data (GSD)** discussed two approaches to sharing GSD: submission to publicly-accessible database with
- 1) access agreement with conditions on use of GSD such as GISAID EpiFlu, or with
 - 2) no access agreement such as GenBank.
- 2016:** **Review of the Pandemic Influenza Preparedness Framework** recommended that “The Director-General [of WHO] should request Member States to consider amending the definition of PIP biological materials in section 4.1 of the PIP Framework to include genetic sequence data.”
- 2017:** **WHO Health Assembly 70** did not take up this recommendation in order to not pre-empt the discussions in the CBD

DSI in UNCLOS Marine Biodiversity of Areas Beyond National Jurisdiction



Negotiations from 2018 - 2019

- 2015:** UN General Assembly 69 decided on the development of an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction
- 2018/19:** Intergovernmental Conferences 1-3 mention DSI under “Use of Terms” and some other articles, but do not work on a definition of DSI
- 2020:** Draft text for IGC-4 (postponed) shows divergent / opposing views of Parties vis-a-vis DSI, “wait-and-see” approach of Parties towards the CBD