US – UNITED STATES OF AMERICA

PROVASOLI-GUILLARD NATIONAL CENTER FOR MARINE ALGAE AND MICROBIOTA (NCMA)

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1. Requirements for Deposit

(a) Kinds of Microorganisms that May Be Deposited

Any algae (including single-celled microalgae and multicellular algae), eukaryotic protists, bacteria, archaea, or viruses from any aquatic environments (including freshwater, brackish, marine and hyper-saline), plant tissue cultures (terrestrial or aquatic) and seeds, and bacteria and fungi from terrestrial environments.

(b) Technical Requirements and Procedures

(i) Form and Quantity

Deposited biological material is accepted by the NCMA in any form. However, the NCMA prefers viable frozen (2 mL) or lyophilized (freeze-dried) cultures. If the depositor is uncertain if the biological material can be cryopreserved, then the NCMA can determine an appropriate cryopreservation protocol via a separate contractual negotiation. For example, since many marine algae species cannot be cryopreserved, they must be maintained in perpetual culture to remain viable. The depositor must provide a minimum of six replicates for deposit (frozen or lyophilized) or duplicate 15 mL cultures (for live perpetual culturing). Algal cultures must contain a minimum of $10^2 – 10^5$ cells mL^{-1} (depending on the species), a minimum of three plants are required for macroalgae (seaweeds), a minimum of $10^4 – 10^6$ cells mL^{-1} are required for bacteria, a minimum of $10^4 – 10^6$ cells mL^{-1} are required for archaea and protozoa, a minimum of $10^5 – 10^7$ particles mL^{-1} are required for marine viruses, 2500 seeds (10 packs of 250) are required for orthodox crop seeds, and 20-40 shoots are required for vegetatively propagated plant tissue (depending upon plant type)..

(ii) Time Required for Viability Testing

The average length of time required for testing the viability of algae accepted by the NCMA is 30 days, but depositors must realize that, in some cases, viability testing of certain marine algae can take as long as 90 days. Bacteria, archaea and marine viruses can take up to 30 days (viruses require a viable host on which to propagate). Orthodox crop seeds can take <30 days and vegetatively propagated plant tissue can take between 30 and 40 days depending

on plant type. Note that all of these estimates are dependent on volume and NCMA's workload at the time of deposit; in some cases testing timeline might be extended. When the deposited organisms cannot be tested for viability *in vitro*, the NCMA should be contacted to determine if the organism can be accepted for deposit.

(iii) Depositor Checks and Renewal of Stocks

Except where the depositor provides the original deposit in preserved state (by freezing or lyophilization), the NCMA prepares its own batches of the deposited biological material at the time of deposit by subculturing or freezing the biological material supplied by the depositor and then preserving the material using appropriate methods. Additional samples are prepared from the original deposit whenever necessary for the renewal of distribution stocks. In cases where the original deposit has been cryopreserved by the depositor, stocks are renewed by requesting that the depositor provide a new deposit or are renewed by thawing and subculturing (via a separate contractual negotiation). Perpetually-cultured biological material is transferred into fresh growth medium on average once every 21-90 days depending on the individual species.

(c) Administrative Requirements and Procedures

(i) General

Language. The official language of the NCMA is English.

Contract. The NCMA will enter into a specific contractual arrangement with the depositor. Among other things, the contract will outline the terms of payment, deposition details, relevant patent requirements and any specific arrangements for the term of the deposit.

Import and/or Quarantine Regulations. The kinds of deposits accepted by the NCMA are typically not subject to import or quarantine regulations; however, if this situation should change, then the depositor will be responsible for adhering to the import and quarantine regulations that must be followed, as well as any additional financial requirements, prior to deposit. If any special permits are required for shipment to the NCMA, then the NCMA should be contacted in advance for guidance.

(ii) Making the Original Deposit

Requirements to Be Met by the Depositor. To make a deposit, please contact the NCMA by e-mail or phone so they can learn more about your proposed deposit. Following that conversation, depositors are required to complete the NCMA deposit form(s) for patent deposits and NCMA's Terms and Conditions form. The NCMA does not require a special form to be completed in the event of a later indication or amendment of the scientific description and/or proposed taxonomic designation, or for a request for attestation that the NCMA has received such information. Depositors will be invoiced upon acceptance of a completed deposit form (BP/1 or BP/AF1) and the NCMA Patent Deposit Terms and Conditions form. Payment must be received by the NCMA prior to the Depositor shipping NCMA its biological material. For safe arrival of your material, NCMA strongly encourages the Depositor to use a reputable courier service. After receiving and accepting your biological material, the NCMA will issue an official receipt (BP/4) for your deposit. Your first viability statement (BP/9) will also be furnished once the viability test is completed.

Official Notifications to the Depositor. The receipt and viability statement are issued on mandatory "international forms" NCMA BP/4 and BP/9, respectively. The NCMA has its own standard forms notifying the depositor of acceptance of a deposit or refusal to accept a deposit, but standard forms are not used for other official notifications.

Unofficial Notifications to the Depositor. If requested, then the NCMA will telephone or e-inform the depositor of the date of deposit and accession number after the deposit has been received, but before the official receipt is issued. The NCMA will similarly communicate the result of the viability test before the viability statement is issued.

Supply of Information to a Patent Agent. The NCMA routinely asks the depositor for the name, mailing address, telephone number and e-mail address of their patent attorney or agent.

If requested, then the NCMA will supply copies of the receipt and viability statement to both the depositor and the patent attorney or agent.

(iii) Converting a Previous Deposit

The NCMA does not have any deposits made for patent purposes outside the provisions of the Budapest Treaty and does not consider Rule 6.4(d) of the Budapest Treaty applicable in other cases.

(iv) Making a New Deposit

The NCMA requires the depositor to supply copies of the relevant documents and declarations required by Rule 6.2 of the Budapest Treaty. The receipt and viability statement for a new deposit are issued on mandatory "international forms" NCMA BP/5 and BP/9, respectively.

2. Furnishing of Samples

(a) Requests for Samples

The NCMA will advise third parties of the correct procedures to follow to make a valid request. In the case of requests requiring proof of entitlement, the NCMA will provide requesting parties with copies of model request form NCMA BP/12 and/or request forms used by individual patent offices (where it has been supplied with such forms).

The NCMA furnishes the samples in the belief that it is the responsibility of the requesting party to ensure it complies with any relevant health and safety requirements. When responding to requests from outside of the United States, the NCMA assumes that the requesting party has met the import requirements of their home country.

(b) Notification of the Depositor

Depositors will be notified by either letter or electronic communication when samples of their deposit have been furnished to third parties.

(c) Cataloguing of Budapest Treaty Deposits

The NCMA usually does not list Budapest Treaty deposits in its published catalog; however, if the depositor or a competent patent office instructs the NCMA to make samples of a deposit available to the public, then that deposit will be listed in the then-current NCMA published catalog.

3. Schedule of Fees

	USD
Storage of non-seed deposits - frozen or lyophilized for 30 years	3,300
Storage of seed deposits - dried and frozen for 30 years	1,650
Perpetual culturing of non-seed deposits for 30 years	27,500
Additional viability statement fee	550
Furnishing of microorganisms sample fee	220

4. Guidance for Depositors

Upon request, the NCMA will provide an e-brochure that describes the NCMA's requirements and practices for patent-related deposits.