★★★ ＜第25回知的財産翻訳検定試験【第12回英文和訳】＞ ★★★
≪１級課題 -バイオテクノロジー-≫

【解答にあたっての注意】
１．問題の指示により和訳してください。
２．解答語数に特に制限はありません。適切な箇所で改行してください。
３．課題文に段落番号がある場合、これを訳文に記載してください。
４．課題は４題あります。それぞれの課題の指示に従い、４題すべて解答してください。

問１．背景技術
STARTから***END***までを和訳してください。

START

Microbes such as microalgae show promise as a renewable feedstock for the production of biofuels ranging from ethanol to biodiesel. Algae are a diverse group of aquatic, photosynthetic organisms generally categorized as either macroalgae (i.e., seaweed) or microalgae, which are typically unicellular. Although the field of algal biofuels remains in its infancy, microalgae have great potential to serve as a resource for clean, sustainable fuel production. Algae are effective photosynthetic organisms for generating chemical energy from sunlight, and it is believed that a large percentage of today's fossil fuels, particularly petroleum, originated as prehistoric algal blooms. As single-celled organisms, microalgae are capable of producing a large portion of their biomass as small molecule biofuel precursors since they lack the macromolecular structural and vascular components needed to support and nourish terrestrial plants. As such, algae provide one of the most direct routes for conversion of carbon and other organic substrates to biofuel. Moreover, the large surface area to volume ratio of these aquatic microorganisms is advantageous for absorption of nutrients, which is reflected in the rapid growth rates observed in many species.

END

問２．実施形態
STARTから***END***までを和訳してください。

START

"Binding entity" means any molecule to which molecular tags can be directly or indirectly attached that is capable of specifically binding to an analyte. The binding entity can be an affinity tag on a nucleic acid sequence. In certain embodiments, the binding entity allows for separation of the nucleic acid from a mixture, such as an avidin molecule, or an antibody that binds to the hapten or an antigen-binding fragment thereof. Exemplary binding entities include, but are not limited to, a biotin molecule, a hapten, an antibody, an antibody binding fragment, a peptide, and a protein.

The term "cancer" or "tumor" is used interchangeably herein. These terms refer to the presence of cells possessing characteristics typical of cancer-causing cells, such as uncontrolled proliferation, immortality, metastatic potential, rapid growth and proliferation rate, and certain characteristic morphological features.

The term "neoplasm" or "neoplastic" cell refers to an abnormal proliferative stage, e.g. , a hyperproliferative stage, in a cell or tissue that can include a benign, pre-malignant, malignant (cancer) or metastatic stage.

END

問３．実施例
STARTから***END***までを和訳してください。

START

Preparation of enriched ovarian somatic support cell suspension:

This cell suspension is prepared by dissociation of pieces of ovarian cortex after removal of growing follicles. Tissue slices (of 0.2 mm^3) are prepared using a scalpel and needles and are held in Leibovitz medium containing BSA (bovine isolation) or HSA (human isolation). To prepare for dissociation into a single cell suspension, tissue pieces are removed from the media and placed in a shallow petri dish. The tissue is reduced to a very small sections using the tip of fine scissors, transferred in HBSS supplemented with Mg and Ca with 1.2U/ml collagenase I/II. Tissue is mechanically dissociated using a Gentlemacs Dissociator set...(一部省略）...

Dissociated tissue is passed through a series of cell filters of decreasing pore size (100-30μm) and enzymatic activity stopped by addition of a 2% NGS solution. The cell solution is transferred into a shallow glass petri dish and inspected under a light microscope to ensure no follicles or oocytes are present-any present are removed using a sterile fine pastette. Cells are now prepared for fluorescently activated cell sorting (FACS) by centrifuging the cell suspension at 300g for 5 mins in HBSS minus Mg and Ca with 2% HSA and NGS (blocking solution). Supernatant is removed and the cell pellet re-suspended in 1ml of blocking solution.

END

問４．請求項
PCT 出願の国内移行時に日本特許庁に提出する翻訳文です。***START***から***END***までを和訳してください。日本語として意味が通るようにしてくださいと、クライアントから指示があったものとします。なお、訳出には、下記明細書内の記載を参考にしてください（これは訳出する必要はありません。）。

（明細書内の記載）

The HDL-related molecule can, optionally, be administered as an oral supplement. Subjects to be treated with methods of the invention can be, for example, mammalian subjects, typically human subjects.

START

1. A method of inhibiting tumor growth, the method comprising contacting tumor cells with an HDL-related molecule selected from the group consisting of HDL mimetic peptides (SEQ ID NO: 1, 3-9, 14 or 26-28), bovine HDL, and ApoA-I.

2. A method of treating or preventing cancer in a subject, the method comprising inhibiting tumor growth according to the method of claim 1, wherein the contacting is by administering the HDL-related molecule to the subject.

3. A method of reducing death and/or oxidative stress in epithelial cells exposed to oxidative stress, the method comprising contacting the epithelial cells with an HDL-related molecule selected from the group consisting of HDL mimetic peptides (SEQ ID NO: 1, 3-9, 12, 14 or 26-28), bovine HDL, and ApoA-I.

4. The method of claim 3, wherein the contacting occurs prior to exposure to oxidative stress.

END