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1.8236

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Distr.
LIMITED
IPCT.112
4 April 1990
ORIGINAL: ENGLISH

**ABSTRACTS OF UNIDO DOCUMENTS ON
BIOTECHNOLOGY AND GENETIC ENGINEERING
1981 - 1989***

Prepared by

**Industrial Technology Development Division
and
Industrial Technology Promotion Division**

* This document has not been edited.

V.90-83490

Introduction

This guide lists UNIDO documentation on biotechnology and genetic engineering in developing countries produced during the period of 1981 to 1989. It is composed of abstracts indexed with the major subject descriptors "biotechnology" and/or "genetic engineering" that are contained in Industrial Development Abstracts: UNIDO Industrial Information System (INDIS). The major subject descriptors used are taken from the UNIDO Thesaurus of Industrial Development Terms.

The following material is indexed: major studies and reports, publications in series, and selected articles; reports and proceedings of expert working groups, workshops and seminars; internal studies; and reports related to technical assistance.

Abstracts of UNIDO Documents on Biotechnology and Genetic Engineering 1981 to 1989 consists of three parts: a subject index, bibliographical abstracts, and author index. The microfiche number, which appears at the end of each entry, is the computer access number of the item.

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GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR

Vienna, Feb. 1982-

Abstract: Quarterly newsletter on developments of potential interest to industry, governments and the scientific community in developing countries concerning genetic engineering and biotechnology.

ENGL

Microfiche number: 006054

00002

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EXCHANGE OF VIEWS WITH EXPERTS ON THE IMPLICATIONS OF ADVANCES IN GENETIC ENGINEERING FOR DEVELOPING COUNTRIES, VIENNA, 1981

REPORT. (MEETING ON IMPLICATIONS OF ADVANCES IN GENETIC ENGINEERING FOR DEVELOPING COUNTRIES).;—RAPPORT. (REUNION SUR LES CONSEQUENCES DES PROGRES EN APPLICATIONS GENETIQUES POUR LES PAYS EN DEVELOPPEMENT).

Vienna, 1981. 55 p.

UNIDO-UNIDO/IS.259

Abstract: UNIDO pub. Report of a meeting on the implications for developing countries of advances in genetic engineering—covers (1) accomplishment of the recombinant DNA technology; needs of DCs (2) strengthening scientific and technological capabilities: the problem; establishing core technical groups; other measures (3) commercialisation and technology transfer: legal aspects; patents (4) creation of an ICGEB; international cooperation. Recommendations. list of participants, list of documents. Additional references: advanced technology, science, research centre, biotechnology.

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Microfiche number: 010964

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NARANG SA

UNIDO

GENETIC ENGINEERING: THE TECHNOLOGY AND ITS IMPLICATIONS.

Vienna, 1981. 55 p. diagrams.

UNIDO-UNIDO/IS.260

Abstract: UNIDO pub. Expert report on genetic engineering—covers (1) seven phases of genetic engineering; details (2) potential applications of recombinant DNA: industrial, agricultural, medical; general problems in application (3) present status in developed countries; development potential for developing countries (4) the risks of genetic engineering. Bibliography, glossary, diagram. Additional references: hybridization, nitrogen fertilizer, pharmaceuticals.

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Microfiche number: 011058

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UNIDO

THE IMPACT OF GENETIC ENGINEERING ON INDUSTRY.

Vienna, 1981. 58 p.

UNIDO-UNIDO/IS.269

Abstract: UNIDO pub on the impact of genetic engineering on industry—covers (1) fermentation technologies (2) the pharmaceutical industry (3) the chemical industry (4) the food industry (5) mineral leaching and recovery (application in ores mining) (6) petroleum recovery (7) pollution control (8) commercialisation of genetically engineered strains. Additional references: biotechnology, fertilisers, polymers, pesticides, single cell protein, enzymes, metals.

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Microfiche number: 011128

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UNIDO

COMMERCIALIZATION OF GENETIC ENGINEERING TECHNOLOGIES; SOME CONSIDERATIONS.

Vienna, 1981. 13 p.

UNIDO-UNIDO/IS.272

Abstract: UNIDO pub on commercialisation of genetic engineering technologies—(1) discusses briefly some important considerations in the commercialisation of biotechnologies, i.e. preconditions and time horizons for commercialisation; agents of commercialisation; and patents (2) considers options for developing countries. Additional references: industry and higher education, licensing, patent law, technology transfer.

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Microfiche number: 011147

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HENDERSON W

UNIDO

THE POTENTIAL OF GENETIC MANIPULATION FOR THE IMPROVEMENT OF VACCINES AGAINST ANIMAL DISEASES IN DEVELOPING COUNTRIES.

Vienna, 1981. 19 p. table.

UNIDO-UNIDO/IS.273

Abstract: UNIDO pub. Expert report on potential genetic engineering for improvement of vaccines against diseases of livestock in developing countries—covers (1) implications of animal disease in DCs (2) potential advantages of recombinant DNA technology applied against virus diseases (3) the major diseases of livestock and of poultry. Table. Additional reference: biotechnology.

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Microfiche number: 011148

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UNIDO

ELEMENTS OF SOME NATIONAL POLICIES FOR BIO-TECHNOLOGY.

Vienna, 1982. 8 p.

UNIDO-UNIDO/IS.270/REV.1

Abstract: UNIDO pub on national policies in some developed countries regarding biotechnology—(1) covers (a) prospects of a "biotechnological revolution" affecting many industrial sectors (b) elaboration of national plans of action; government policy (2) summarizes guidelines issued in Canada, UK, USA, France, Japan and Germany FR, as an aid to decision making and the definition of priorities. Additional references: research, education, training, investment.

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Microfiche number: 011247

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UNIDO

CONSULTATIONS ON THE IMPLICATIONS OF ADVANCES IN GENETIC ENGINEERING FOR DEVELOPING COUNTRIES, VIENNA, 1981

PATENTABILITY OF THE MICRO-ORGANISMS AND IMPLICATIONS IN THE DEVELOPING COUNTRIES.

Vienna, 1981. 6 p.

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Abstract: UNIDO pub on patentability and patent law regarding microorganisms and implications in developing countries (reference: genetic engineering)—covers (1) background; experience and legal aspects of research and application in the field of biotechnology in the USA; court decisions regarding recombinant DNA industry (2) current practice of patenting: Germany FR, the European Patents Convention, Japan, the UK (3) implication for DCs.

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Microfiche number: 011280

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UNIDO

CONSULTATIONS ON THE IMPLICATIONS OF ADVANCES IN GENETIC ENGINEERING FOR DEVELOPING COUNTRIES, VIENNA, 1981

GENETIC ENGINEERING AND ITS IMPLICATIONS FOR DEVELOPING COUNTRIES: SOME PRELIMINARY ISSUES FOR ACTION.

Vienna, 1981. 6 p.

Abstract: *UNIDO pub on genetic engineering and its implications for developing countries—covers (1) significance of biotechnology, related innovations and commercial applications; impact of genetic engineering of industrial development; sectors likely to be affected; research, the role of developed countries; need to avoid increasing technology gap in DCs (2) possible establishment of an international research centre to offer cooperation in research and development, national institutions building, technology transfer, training, etc. (3) other measures to be considered.*

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Microfiche number: 011332

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UNIDO

CONSULTATIONS ON THE IMPLICATIONS OF ADVANCES IN GENETIC ENGINEERING FOR DEVELOPING COUNTRIES, VIENNA, 1981

PROVISIONAL LIST OF DOCUMENTS. (MEETING ON GENETIC ENGINEERING).

Vienna, 1981. 1 p.

Abstract: *UNIDO pub. List of documents for a meeting on the implications of advances in genetic engineering for developing countries.*

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Microfiche number: 011345

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UNIDO

CONSULTATIONS ON THE IMPLICATIONS OF ADVANCES IN GENETIC ENGINEERING FOR DEVELOPING COUNTRIES, VIENNA, 1981

AIDE MEMOIRE. (MEETING ON GENETIC ENGINEERING).

Vienna, 1981. 4 p.

Abstract: *UNIDO pub. Aide memoire for a meeting on the implications of advances in genetic engineering for developing countries.*

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Microfiche number: 011346

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UNIDO

CONSULTATIONS ON THE IMPLICATIONS OF ADVANCES IN GENETIC ENGINEERING FOR DEVELOPING COUNTRIES, VIENNA, 1981

AGENDA. (MEETING ON GENETIC ENGINEERING).

Vienna, 1981. 1 p.

Abstract: *UNIDO pub. Agenda for a meeting on the implications of advances in genetic engineering for developing countries.*

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Microfiche number: 011347

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UNIDO

NATIONAL WORKSHOP ON THE POTENTIAL OF GENETIC ENGINEERING AND BIO-TECHNOLOGY FOR ENVIRONMENTAL HEALTH AND THE PETROCHEMICAL INDUSTRY, KUWAIT, 1982
REPORT. (WORKSHOP ON POTENTIAL OF GENETIC ENGINEERING AND BIO-TECHNOLOGY, KUWAIT).

Vienna, 1982. 8 p.

UNIDO-UNIDO/IS.321

Abstract: UNIDO pub. Report of a meeting on the potential of genetic engineering and biotechnology for pollution control and the petrochemical industry in Kuwait— covers (1) discussions and briefings regarding concepts and recent developments in relevant genetic engineering (2) establishment of contacts with Kuwait scientists; evaluation of their research needs (3) the initiative for establishing an International Centre for Genetic Engineering and Bio-technology (ICGEB) (4) forms of cooperation; proposed action. Agenda. Additional references: environment, health, research centre.

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Microfiche number: 011525

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UNIDO

EXCHANGE OF VIEWS WITH EXPERTS ON THE IMPLICATIONS OF GENETIC ENGINEERING AND BIOTECHNOLOGY ON INDUSTRIALIZATION IN DEVELOPING COUNTRIES, CALCUTTA AND NEW DELHI, 1982

REPORT. (MEETING ON THE IMPLICATIONS OF GENETIC ENGINEERING AND BIOTECHNOLOGY ON INDUSTRIALIZATION IN DEVELOPING COUNTRIES).

Vienna, 1982. 17 p.

UNIDO-UNIDO/IS.322

Abstract: UNIDO pub. Report on meeting concerning industrial applications of genetic engineering and biotechnology in developing countries, with special reference to developments in India—covers (1) discussions with scientists, industrial staff and high-level policy makers (2) the role of UNIDO in relevant activities (3) consideration of (a) monoclonal antibodies (b) restriction enzymes (c) plant tissue culture for production of biomass (d) fermentation alcohol production from renewable resources (4) experience and specific needs in India; resources, research, technology policy; proposed activities. Agenda, list of participants, list of documents.

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Microfiche number: 011584

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UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

DRAFT MEMORANDUM OF UNDERSTANDING AND GUIDING PRINCIPLES OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY.;—PROJET DE MEMORANDUM D'ACCORD ET SCHEMA D'ORGANISATION DU CENTRE INTERNATIONAL POUR LE GENIE GENETIQUE ET LA BIOTECHNOLOGIE.;—BORRADOR DE MEMORANDO DE ENTENDIMIENTO Y PRINCIPIOS RECTORES DEL CENTRO INTERNACIONAL DE INGENIERIA GENETICA Y BIOTECNOLOGIA.

Vienna, 1982. 9 p.

UNIDO-ID/WG.382/1

Abstract: UNIDO pub giving draft of understanding and guiding principles for the proposed ICGEB (development centre for genetic engineering and biotechnology) —covers the centre's objectives and functions, administrative aspects, legal aspects, etc.

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Microfiche number: 011727

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UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

FIVE-YEAR WORK PROGRAMME ON THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY.— PROGRAMME QUINQUENNAL DE TRAVAIL DU CENTRE INTERNATIONAL POUR LE GENIE GENETIQUE ET LA BIOTECHNOLOGIE.—PROGRAMA DE TRABAJO QUINQUENAL DEL CENTRO INTERNACIONAL DE INGENIERIA GENETICA Y BIOTECNOLOGIA.

Vienna, 1982. 18 p. table.

UNIDO-ID/WG.382/2; UNIDO-ID/WG.382/2/CORR.1

Abstract: UNIDO pub on the work programme of the proposed ICGEB (development centre for genetic engineering and biotechnology)—deals with general aspects of the work programme, covering (1) its background, design and thrust (2) ongoing research programmes (3) linkages to international and national institutions and research centres; linkages with industry (4) implementation; financial aspects (5) action required.

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Microfiche number: 011728

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Heden, Carl-Göran

UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

SELECTIVE APPLICATION OF ADVANCED BIOTECHNOLOGY FOR DEVELOPING COUNTRIES.— APPLICATION SELECTIVE DE LA BIOTECHNOLOGIE DE POINTE POUR LES PAYS EN DEVELOPPEMENT.— APLICACION SELECTIVA DE LA BIOTECNOLOGIA AVANZADA EN LOS PAISES EN DESARROLLO.

Vienna, 1982. 25 p.

UNIDO-ID/WG.382/2/A44.1

Abstract: UNIDO pub on selective application of advanced biotechnology for developing countries (reference: ICGEB)—covers (1) background and justification of activities at the ICGEB (2) envisioned field activities of Biological Resources Department Teams (BIORED); research and development programmes to be carried out at the Centre pilot plant (3) work plan, prerequisites, financial aspects and five-year budget (4) equipment requirements (5) formal education in biochemical engineering; ICGEB postgraduate and training programmes. Bibliography. Additional references: biochemistry, microbiology.

ENGL FREN SPAN

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Microfiche number: 011729

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Wu, Ray

UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

APPLICATION OF GENETIC ENGINEERING FOR ENERGY AND FERTILIZER PRODUCTION FROM BIOMASS.— APLICACION DE LA INGENIERIA GENETICA A LA PRODUCCION DE ENERGIA Y DE FERTILIZANTES A PARTIR DE LA BIOMASA.—APPLICATION DU GENIE GENETIQUE A LA PRODUCTION D'ENERGIE ET A LA PRODUCTION D'ENGRAIS A PARTIR DE LA BIOMASSE.

Vienna, 1982. 21 p.

UNIDO-ID/WG.382/2/Add.2

Abstract: UNIDO pub on application of genetic engineering for ethanol and fertilizer production from biomass (reference: ICGEB)—covers (1) need for efficient use and conversion of renewable resources (such as cellulose materials, agricultural wastes) into liquid fuels; inputs from genetic engineering and biotechnology; analysis of cellulases from cellulolytic microorganisms; cloning activities (2) fertilizer production using biological systems; activities for improvement of crop yields (3) work plans; cooperation between the ICGEB and other research centres; financial aspects, budget, equipment needs. Bibliography. Additional references: energy, nitrogen-fixation.

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Microfiche number: 011730

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Bukhari, Ahmad; Pettersson, Ulf

UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

APPLICATION OF GENETIC ENGINEERING AND BIOTECHNOLOGY FOR THE PRODUCTION OF IMPROVED HUMAN AND ANIMAL VACCINES WITH PARTICULAR REFERENCE TO TROPICAL DISEASES.— APLICACION DE LA INGENIERIA GENETICA Y DE LA BIOTECNOLOGIA A LA PRODUCCION DE VACUNAS MEJORADAS PARA LOS SERES HUMANOS Y PARA ANIMALES, CON PARTICULAR REFERENCIA A LAS ENFERMEDADES TROPICALES.—APPLICATION DU GENIE GENETIQUE ET DE LA BIOTECHNOLOGIE A LA PRODUCTION DE VACCINS AMELIORES POUR L'HOMME ET LES ANIMAUX, NOTAMMENT EN CE QUI CONCERNE LES MALADIES TROPICALES.

Vienna, 1982. 34 p. tables.

UNIDO-ID/WG.382/2/Add.4

Abstract: UNIDO pub on use of genetic engineering and biotechnology for production of improved pharmaceuticals, with special regard to tropical diseases (reference: ICGEB)—covers (1) important infectious diseases; techniques involved in attacking problems; construction of recombinant DNA; cell technology; potential use of recombinant DNA for production of vaccines; ongoing research (2) activities including training programmes to be offered; work plan (3) cooperation of the ICGEB with other research centres and clinical laboratories (4) prerequisites; financial aspects, five-year budget; equipment needs. Additional reference: health.

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Microfiche number: 011732

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McConnell, David J.

UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

IMPROVED AGRICULTURAL AND FOOD PRODUCTS THROUGH GENETIC ENGINEERING AND BIOTECHNOLOGY.;— AMELIORATION DES PRODUITS AGRICOLES ET ALIMENTAIRES PAR LE GENIE GENETIQUE ET LA BIOTECHNOLOGIE.;—PRODUCTOS AGRICOLAS Y ALIMENTICIOS MEJORADOS MEDIANTE LA INGENIERIA GENETICA Y LA BIOTECNOLOGIA.

Vienna, 1982. 20 p.

UNIDO-ID/WG.382/2/Add.5

Abstract: UNIDO pub on improved agricultural products and food through genetic engineering and biotechnology (reference: ICGEB)—covers (1) novel methods of plant breeding; use of recombinant DNA techniques; novel biological pesticides; nitrogen fixation, photosynthesis and other complex processes of plants; genetic engineering and food technology (2) activities: research and development; work plan (3) cooperation with other institutions and research centres (4) prerequisites; financial aspects, five-year budget; equipment needs and special laboratory facilities.

ENGL FREN SPAN

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Microfiche number: 011733

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Heden, Carl-Göran

UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

BIO-INFORMATICS.;— BIO-INFORMATIQUE.;—BIOINFORMATICA.

Vienna, 1982. 15 p.

UNIDO-ID/WG.382/2/Add.6

Abstract: UNIDO pub on bio-informatics, denoting the area of interaction between information technology and the life sciences, including biotechnology (reference: ICGEB)— covers (1) background and justification of related research programmes at the proposed ICGEB (2) specific activities and work plan (3) prerequisites; financial aspects, budget. Bibliography. Additional references: microbiology, ecology, resources conservation.

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Microfiche number: 011734

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McConnell, David J.

UNIDO

(R) GENETIC ENGINEERING AND BIOTECHNOLOGY IN EGYPT.

Vienna, 1982. 37 p.

UNIDO-UNIDO/IS/R.4

Abstract: UNIDO pub. Expert report on genetic engineering and biotechnology in Egypt— covers (1) application in both private sectors and public sectors (2) programmes of research and development and their applicability to industries: the agriculture sector, livestock, plants, pesticides, insecticides; petroleum industry, chemical industry, enzymes and vaccines, etc. (3) government policy and regulations affecting development and technology transfer in this field, including patents and licensing legislation. Recommendations. Restricted.

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Microfiche number: 011830

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UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

LIST OF DOCUMENTS. (MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY).

Vienna, 1982. 1 p.

UNIDO-ID/WG.382/5

Abstract: UNIDO pub. List of documents for a meeting on the establishment of the International Centre for Genetic Engineering and Biotechnology (ICGEB).

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Microfiche number: 011846

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Steinkraus, Keith H.

UNIDO

APPLICATION OF BIOTECHNOLOGY AND GENETIC ENGINEERING TO AFRICAN FERMENTED FOOD PROCESSES.— APPLICATION DE LA BIOTECHNOLOGIE ET DU GENIE GENETIQUE AUX METHODES AFRICAINES DE FABRICATION D'ALIMENTS FERMENTES.

Vienna, 1982. 28 p.

UNIDO-UNIDO/IS.336

Abstract: UNIDO pub on application of biotechnology and genetic engineering to food fermentation in Africa—covers (1) general background and development potential (2) some examples of African fermented foods (a) Kaffier corn (sorghum) beer (b) ogi porridge (from maize, millet or sorghum) in Nigeria (c) gari (from cassava) (d) South African mahewu (maize nonalcoholic beverages); mahewu in concentrated form. Recommendations, bibliography. Additional reference: single cell protein.

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Microfiche number: 011867

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UNIDO

EXPERT MEETING PREPARATORY TO INTERNATIONAL FORUM ON TECHNOLOGICAL ADVANCES AND DEVELOPMENT, MOSCOW, 1982

POLICY RESPONSES TO TECHNOLOGICAL ADVANCES. SOME ILLUSTRATIVE CASES.

Vienna, 1982. 21 p.

UNIDO-ID/WG.384/3

Abstract: UNIDO pub on policy responses to advanced technology, with special reference to microelectronics, genetic engineering and biotechnology—covers (1) government policy responses to emerging technological advances (2) assessment of future trends in the context of development as a whole (3) policy responses based on institutionalized or integrated approaches to technological change (4) policy responses to selected advances in UK, USA, Germany FR, Ireland, EEC, Singapore, Brasil, Mexico and India. Bibliography.

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Microfiche number: 011931

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UNIDO

EXPERT MEETING PREPARATORY TO INTERNATIONAL FORUM ON TECHNOLOGICAL ADVANCES AND DEVELOPMENT, MOSCOW, 1982

GENETIC ENGINEERING AND BIOTECHNOLOGY AND DEVELOPING COUNTRIES. DIRECTIONS OF ACTION.

Vienna, 1982. 8 p.

UNIDO-ID/WG.384/4/REV.1

Abstract: UNIDO pub on genetic engineering and biotechnology for developing countries—covers (1) direction of national actions: building up teams of technical personnel for advanced technology and skills; training programmes; patents laws; health regulations (2) direction of international action: cooperation in setting up the ICGEB for research aid and training of core technical groups, for promotion of biomass generation and its industrial conversion, for assisting DCs in the commercialisation of the relevant technology, etc.; technical assistance. Additional references: technology transfer, technology policy.

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Microfiche number: 011940

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Klesov, A.A.

UNIDO

EXPERT MEETING PREPARATORY TO INTERNATIONAL FORUM ON TECHNOLOGICAL ADVANCES AND DEVELOPMENT, MOSCOW, 1982

BIOTECHNOLOGY OF ENZYMATIC CONVERSION OF CELLULOSE: FUNDAMENTALS AND APPLIED ASPECTS.

Vienna, 1982. 7 p.

UNIDO-ID/WG.384/13

Abstract: UNIDO pub on biotechnology for conversion of cellulose by use of enzymes—covers (1) techniques for conversion of carbohydrates from plentiful resources of cellulose into food sugars; glucose syrup obtained by enzymatic cellulose hydrolysis; application of processes in feed protein and in fermentation alcohol (2) trends in engineering enzymology; bioconversion of raw materials for recycling (3) large-scale industrial utilisation of cellulose containing industrial wastes and agricultural wastes; engineering design for suitable chemical reactors; experience in the USSR. Additional reference: biochemistry.

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Microfiche number: 012127

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UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 1.

Vienna, 1982. 17 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—(1) covers research centres, research programmes, health aspects, technology transfer, patents, licensing, regulations; establishment of an ICGEB; industrial applications of biotechnology; technology policy (2) presents news items i.a. from Ireland, Japan, USA, Western Europe, Brasil, Philippines, Mexico, China, UK (3) includes a glossary of relevant terminology. Additional references: pharmaceuticals, vaccines, chemicals, hormones, single cell protein, computers.

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Microfiche number: 012129

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UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 2.

Vienna, 1982. 18 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—(1) covers research centre, research programmes, health aspects, technology transfer, patents, licensing, regulations; establishment of an ICGEB; industrial applications of biotechnology; conversion of ligno cellulose into ethanol; fermentation equipment (2) presents news items i.a. from Denmark, France, Japan, Malaysia, Mexico, Netherlands, Pakistan, UK, USA, USSR (3) lists recent publications. Additional references: technological change, biochips, residual oil, cheese, pharmaceuticals, vaccines, biogas, enzymes, protein, investment, commercialization.

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Microfiche number: 012130

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UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 3.

Vienna, 1982. 21 p. tables, diagrams.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—(1) covers research centres, research programmes, industry and higher education, company news, health aspects, technology transfer, patents, licensing, regulations; establishment of an ICGEB; industrial applications of biotechnology (2) presents news items i.a. from Canada, China, Germany FR, France, Israel, Japan, UK (3) lists meetings and recent publications. Additional references: agriculture, interferon, pharmaceuticals, vaccines, waste disposal, pollution control, protein, coffee, commercialization. Flow chart.

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Microfiche number: 012131

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UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

REPORT. (MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY).; —RAPPORT. (REUNION SUR L'ETABLISSEMENT D'UN CENTRE INTERNATIONAL POUR LE GENIE GENETIQUE ET LA BIOTECHNOLOGIE).; —INFORME. (REUNION SOBRE LA CREACION DEL CENTRO INTERNACIONAL DE INGENIERIA GENETICA Y BIOTECNOLOGIA).

Vienna, 1985. 43 p.

UNIDO-ID/WG.982/7; UNIDO-ID/WG.982/7/CORR.1

Abstract: UNIDO pub. Report of a meeting on establishment of an international centre for genetic engineering and biotechnology (ICGEB)—covers (1) background of efforts for establishment of the ICGEB; rationale and proposed work programme; structure and organisational aspects; offers of location. Recommendations, agenda, list of participants, list of documents. Additional references: cooperation, developing countries, TCDC, research centres, financing, staff.

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Microfiche number: 012151

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UNIDO

HIGH-LEVEL MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY, BELGRADE, 1982

LIST OF PARTICIPANTS. (MEETING ON THE ESTABLISHMENT OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY).

Vienna, 1982. 13 p.

UNIDO-ID/WG.382/6/REV.1

Abstract: UNIDO pub. List of participants for a meeting on the establishment of the International Centre for Genetic Engineering and Biotechnology (ICGEB).

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Microfiche number: 012288

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Claeys, Cor L.

UNIDO

THE IMPACT OF MICROELECTRONICS ON BIOMEDICAL APPLICATIONS IN DEVELOPING COUNTRIES

Vienna, 1983. 22 p. tables, diagrams.

UNIDO-UNIDO/IS.592

Abstract: UNIDO pub on the impact of microelectronics on biomedical applications in developing countries (reference: biotechnology)—covers (1) the state of the art and some new trends in biomedical engineering; use of sensors and transducers for biomedical applications based on physical and chemical parameters (2) relevance to DCs; requirements for introduction (3) relation between the medical and the electronic professions (4) examples of practical applications; possible action programmes for DCs. Bibliography, tables. Additional references: health, measuring instruments.

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Microfiche number: 012676

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UNIDO

CENTRO SUB-REGIONAL PARA INVESTIGACION Y DESARROLLO EN BIOTECNOLOGIA E INGENIERIA GENETICA. REGION DE SURAMERICA.

ST/RLA/81/002

Vienna, 1982. vii, 206 p. tables, graphs, diagrams.

UNIDO-UNIDO/IO.541

Abstract: UNIDO pub. Expert report regarding development potential of biotechnology and genetic engineering in South America, and on establishment of a regional research centre—covers (1) importance of industrial production of antibiotics by fermentation; regional cooperation, size of enterprises, production costs (2) analysis in eight countries of social aspects, economic implications, condition and level of the pharmaceutical industry, research and laboratory facilities, patent law, etc. (3) consumption and commercialization of pharmaceuticals (4) need for quality control, technical personnel, reasonable prices of raw material; access to advanced technology (4) equipment; costs. Recommendations, statistics, factory layout.

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Microfiche number: 013054

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Zimmerman, Burke K.

UNIDO

COMMERCIALIZATION OF GENETIC ENGINEERING TECHNOLOGY.

Vienna, 1983. 21 p.

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Abstract: UNIDO pub on the commercialization of biotechnology—covers (1) development and present state of genetic engineering, its industrial applications and enterprises engaged in its commercialization (2) need for very careful choice of product; economic aspects; problems of consumer demand and profitability (3) various fields of application: pharmaceuticals, food, feed, fuels (4) regulations governing manufacture, import and export; choice of technology; steps in decision making (5) the present state and prospects of the industry: biotechnology in developing countries; future directions.

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Microfiche number: 013166

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UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 4.

Vienna, 1983. 32 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—covers (1) news and events (2) recent developments in genes research (3) country news (4) patents, meetings, list of documents and newsletters. Additional references: health, agriculture, enzymes, protein, yeast, vaccines, pesticides, ICGEB, advanced technology.

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Microfiche number: 013215

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UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 5.

Vienna, 1983. 50 p. tables, diagram.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—covers (1) news and events (2) new biochemistry processes, related research and industrial applications (3) recent developments, research programmes (4) country news (5) patents, meetings, documentation. Additional references: health, agriculture, chemicals, pesticides, vaccines, food, research and development, advanced technology.

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Microfiche number: 013216

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UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 6.

Vienna, 1983. 67 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—covers (1) news and events; creation of the ICGEB; research and development; problems of genetic manipulation; interferon, etc. (2) recent developments; health, industrial applications (3) country news (4) patents, meetings. Additional references: biomass, vaccines, immunization, yeast, livestock, protein, seaweed, pollution control, biochemistry.

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Microfiche number: 013217

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UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 7.

Vienna, 1983. 58 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—covers (1) news and events (2) recent developments (3) country news (4) patents, meetings, list of documents. Additional references: health, research and development, enzymes, immunisation, livestock, agriculture, protein.

ENGL

35.50

Microfiche number: 013218

00040

Pettersson, Ulf

UNIDO

APPLICATION OF GENETIC ENGINEERING TO THE PHARMACEUTICAL INDUSTRY.

Vienna, 1983. 17 p.

....

Abstract: UNIDO pub. Expert report on application of genetic engineering to the pharmaceutical industry —covers (1) use of DNA technology in the production and research of vaccines; production of peptides and proteins to be used as drugs (2) study of microbiology and cell technology, identification of microorganisms; importance for the developing countries of improved diagnostic methods. Additional references: health, advanced technology, enzymes.

ENGL

35.60

Microfiche number: 013253

00041

Sinskey, Anthony J.

UNIDO

SEMINAR/WORKSHOP ON "TECHNOLOGY TRANSFER, MANAGEMENT AND DEVELOPMENT AND THE IMPLICATIONS OF NEWLY-EMERGING ADVANCED TECHNOLOGIES", PORT-OF-SPAIN, TRINIDAD AND TOBAGO, 1983

THE EFFECTS OF DEVELOPMENT IN BIOTECHNOLOGY ON THE THIRD WORLD: CURRENT STATUS, TRANSFER OF TECHNOLOGY, FUTURE OF BIOTECHNOLOGY.

Vienna, 1984. 50 p.

UNIDO-ID/WG.412/4

Abstract: UNIDO pub on development of biotechnology in developing countries, with special reference to technology transfer—covers: definition of biotechnology; raw materials; biotransformations; bioreactors; product recovery and delivery; effects on the third world; economic implications; transfer of biotechnology; development potential; impact on various sectors. Diagrams. Additional references: fermentation, microorganisms, biocatalysts.

ENGL

35.50

Microfiche number: 013288

00042

Moe, Vincent G.

UNIDO

SEMINAR/WORKSHOP ON "TECHNOLOGY TRANSFER, MANAGEMENT AND DEVELOPMENT AND THE IMPLICATIONS OF NEWLY-EMERGING ADVANCED TECHNOLOGIES", PORT-OF-SPAIN, TRINIDAD AND TOBAGO, 1983

GENETIC ENGINEERING IN VETERINARY MEDICINE.

Vienna, 1984. 6 p.

UNIDO-ID/WG.412/5

Abstract: UNIDO pub on genetic engineering in the service of livestock medicine—covers (1) background of research in the field of microbiology (2) some genetically-engineered animal vaccines being developed to cope with virus diseases; biosynthesised sub-unit vaccines (3) interferons for animals; monoclonal antibody; animal growth hormones. Additional references: pharmaceuticals, microorganisms, enzymes, health.

ENGL

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Microfiche number: 013307

00043

Viniegra Gonzalez, Gustavo

UNIDO

SEMINAR/WORKSHOP ON "TECHNOLOGY TRANSFER, MANAGEMENT AND DEVELOPMENT AND THE IMPLICATIONS OF NEWLY-EMERGING ADVANCED TECHNOLOGIES", PORT-OF-SPAIN, TRINIDAD AND TOBAGO, 1983

BIOTECHNOLOGY FOR FOOD CONVERSIONS IN THE THIRD WORLD: DEVELOPMENT, TRANSFER AND IMPLEMENTATION.

Vienna, 1984. 28 p. tables, graphs.

UNIDO-ID/WG.412/6

Abstract: UNIDO pub on the use of biotechnology in food production (based on experience in Mexico)—covers (1) the increasing problem of competitive human and animal nutrition in developing countries; use of biotechnology in developing substitutes for cereals feed for cattle; microbial food conversion (2) potential users in the Third World; the private sector and public sector (3) research programmes, pilot projects; cooperation and technology transfer. Bibliography, statistics. Additional references: farming, bagasse, molasses, starch, protein, fermentation.

ENGL

31.50

Microfiche number: 013375

00044

Zilinskas, Raymond A.

UNIDO

BIOTECHNOLOGY AND THE DEVELOPING COUNTRIES: APPLICATIONS FOR THE PHARMACEUTICAL INDUSTRY AND AGRICULTURE.

Vienna, 1984. 75 p. tables.

UNIDO-UNIDO/IS.452

Abstract: UNIDO pub on applications of biotechnology in pharmaceutical industry and agriculture of developing countries—covers (1) definitions (2) pharmaceutical applications of biotechnology and genetic engineering (a) recombinant DNA: proteins, vaccines, antibiotics, immunisation, etc. (b) new biotechnology and fermentation (3) biotechnology and agro-industry: livestock husbandry; animal health; genetic improvement of plants; pesticides; biological pest control agents (4) relevant projects. Tables, bibliography, lists of diseases. Additional references: research programmes, laboratory.

ENGL

36.50

Microfiche number: 013480

00045

Warhurst, Alyson C.

UNIDO

THE APPLICATION OF BIOTECHNOLOGY IN DEVELOPING COUNTRIES: THE CASE OF MINERAL LEACHING WITH PARTICULAR REFERENCE TO THE ANDEAN PACT COPPER PROJECT.

Vienna, 1984. 160 p. tables, diagrams.

UNIDO-UNIDO/IS.450

Abstract: UNIDO pub. Expert report on application of biotechnology in developing countries, with special reference to bacterial leaching of copper ores in an Andean Group project—covers (1) requirements fundamental to the implementation of an efficient bacterial leaching project; technical and economic aspects (2) a relevant project in Latin America, with attention to choice of technology and improvement of knowhow (3) suggestions for policy at the project level. Recommendations, diagrams, flow chart, bibliography. Additional references: mining, mineral resources, ore processing, microorganisms, regional cooperation, research, technology transfer.

ENGL

35.50

Microfiche number: 013498

00046

Glisin, Vladimir

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY—SOME PREREQUISITES FOR THEIR DEVELOPMENT IN DEVELOPING COUNTRIES.

Vienna, 1983. 10 p.

....

Abstract: UNIDO pub. Expert report on steps to promote genetic engineering in developing countries—covers (1) background of early research (2) common denominators of an effective science and technology policy in DCs (3) the role of research centres in developing biotechnology; appropriate educational policy to create scientific infrastructure (4) some areas of application for biotechnology.

ENGL

35.50

Microfiche number: 013542

00047

Klysov, A. A.

UNIDO

ENZYMATIC CONVERSION OF CELLULOSIC MATERIALS TO SUGAR AND ALCOHOL: THE TECHNOLOGY AND ITS IMPLICATIONS.

Vienna, 1984. 64 p. tables.

UNIDO-UNIDO/IS.476

Abstract: UNIDO pub on biotechnology for conversion of cellulose materials to sugar and alcohol—covers (1) enzymatic hydrolysis of cellulose: raw materials (biomass, agricultural wastes); pre-treatment (2) enzymes: composition, activity, properties, sources, process (3) scale-up pilot plant technologies and processes being developed in USA, Canada, USSR, India, Finland, Sweden, Italy, South Africa R and Japan; economic aspects (4) development potential in the developing countries. Statistics, bibliography. Additional references: research, glucose, microorganisms, ethanol.

ENGL

35.50

Microfiche number: 013889

00048

McConnell, David J.

UNIDO

BASIC INGREDIENTS REQUIRED FOR CAPABILITY BUILDING IN GENETIC ENGINEERING AND BIOTECHNOLOGY IN DEVELOPING COUNTRIES: SOME OBJECTIVES FOR THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY.

Vienna, 1984. 33 p.

....

Abstract: UNIDO pub on capability building in genetic engineering and biotechnology, with special reference to objectives for the ICGEB—reviews (1) considerations and the series of discussion leading to proposed establishment of an ICGEB serving the developing countries (2) the Belgrade meeting, 1982 (3) the report of the select committee: views and responses (4) the ministerial-level meeting in Madrid, 1983, and Vienna, 1984 (5) the ICGEB and basic ingredients of biotechnology; research, training, knowhow, administrative aspects.

ENGL

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Microfiche number: 013916

00049

UNIDO

ARAB GULF CONFERENCE ON BIOTECHNOLOGY AND APPLIED MICROBIOLOGY, 1ST, RIYADH, SAUDI ARABIA, 1984

THE POTENTIAL OF BIOTECHNOLOGY FOR THE GULF REGION AND THE ROLE OF THE INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY.

Vienna, 1984. 10 p.

UNIDO-UNIDO/IS.496

Abstract: UNIDO pub on the development potential for biotechnology in the Gulf Arab countries, with special reference to the ICGEB—covers (1) international centre for genetic engineering and biotechnology (2) the regional potential in hydrocarbons microbiology and in agriculture (3) the role of the ICGEB in supporting research programmes in the Gulf states: training; joint research and development programmes. Bibliography. Additional reference: regional cooperation.

ENGL

35.50

Microfiche number: 014113

00050

Mueller, H.G.

UNIDO

SOME ASPECTS OF PLANT BIOTECHNOLOGY OF RELEVANCE TO AFRICA.

Vienna, 1984. 15 p. diagrams.

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Abstract: UNIDO pub. Expert report on application of plant biotechnology in Africa—covers (1) nutrition aspects of use in improving food, with particular reference to cereals fermentation (2) steps in application: study of traditional process; reproduction of the process in the laboratory; improvement of process or product. Diagrams. Additional references: plant products, protein rich food, food technology, maize, sorghum, millet, beer, product development.

ENGL

35.50

Microfiche number: 014144

00051

Bababunmi, Enitan A.

UNIDO

EXPERT GROUP MEETING ON THE IMPLICATIONS OF NEW TECHNOLOGIES IN THE IMPLEMENTATION OF THE LAGOS PLAN OF ACTION AND THE PROGRAMME FOR THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA, MBAABANE, SWAZILAND, 1984

NIGERIA. ENZYME BIOTECHNOLOGY FOR DEVELOPMENT IN AFRICA.

Vienna, 1984. 3 p.

....

Abstract: UNIDO pub on enzymes biotechnology for development in Africa—covers (1) recent advances in contemporary biochemistry and genetic engineering; their application and economic implications (2) development potential of enzymes; their use in food industry, pharmaceutical industry and feed production. Appends a list of enzymes.

ENGL

35.50

Microfiche number: 014171

00052

Batt, C.A.; Sinsky, Anthony J.

UNIDO

SYMPOSIUM ON THE IMPORTANCE OF LACTIC ACID FERMENTATION IN THE FOOD INDUSTRY, MEXICO CITY, 1984

CURRENT STATUS OF GENETIC ENGINEERING OF LACTOBACILLUS.

Vienna, 1984. 30 p. diagrams.

UNIDO-ID/WG.431/2

Abstract: UNIDO pub on genetic engineering of lactobacillus applicable in food fermentation processes and production of lactic acid—covers: classification of lactobacilli; genetics; development of a recombinant DNA system; vectors; transformation. Bibliography, diagrams. Additional references: microorganisms, dairy products.

ENGL

31.50

Microfiche number: 014212

00053

Steinkraus, Keith H.

UNIDO

APPLICATION OF BIOTECHNOLOGY AND GENETIC ENGINEERING TO AFRICAN FERMENTED FOOD PROCESSES.

Vienna, 1984. 31 p. diagrams.

....

Abstract: UNIDO pub. Expert report on application of genetic engineering to fermentation food processes in Africa—covers (1) problems of insufficient food production (2) development of genetic engineering; research results; various uses; application of biotechnology in food industry (3) food fermentations; essential microorganisms; typical products (4) advantages of new processes (5) production of sorghum beer, of starch food (from cassava) and of nonalcoholic beverages from maize. Diagrams, bibliography. Additional references: millet, yeast, single cell protein.

ENGL

31.40

Microfiche number: 014247

00054

Benbura, M.A.

UNIDO

RECOMBINANT WORK IN ZIMBABWE.

Vienna, 1984. 3 p.

....

Abstract: UNIDO pub. Expert report on genetic engineering activities at a laboratory in Zimbabwe—covers (1) beginning and early stages of research projects (2) problems encountered; planning of further activities (3) enzymes; agriculture, pharmaceuticals, knowhow, training assistance.

ENGL

35.50

Microfiche number: 014260

00055

McKay, Larry L.

UNIDO

SYMPOSIUM ON THE IMPORTANCE OF LACTIC ACID FERMENTATION IN THE FOOD INDUSTRY, MEXICO CITY, 1984

GENETIC MODIFICATIONS OF LACTIC ACID BACTERIA: PLASMID DIRECTED FUNCTIONS AND DEVELOPMENT OF GENE TRANSFER SYSTEMS.

Vienna, 1985. 17 p.

UNIDO-ID/WG.431/3

Abstract: UNIDO pub on genetic engineering applied to lactic acid bacteria—covers: plasmid biology; genetic studies; transduction; stabilization of lactose fermentation ability; recombination-deficient mutant of *S. lactis*; conjugation; production of antagonistic proteins; nisin resistance; phage resistance; transformation; cloning in *S. lactis*; conclusion. Bibliography. Additional references: microorganisms, dairy products.

ENGL

31.50

Microfiche number: 014290

00056

Chopin, Marie-Christine; Gautier, Michel; Santos, Alda Luiza Loureiro

UNIDO

SYMPOSIUM ON THE IMPORTANCE OF LACTIC ACID FERMENTATION IN THE FOOD INDUSTRY, MEXICO CITY, 1984

CONTROL OF PHAGE INFECTIONS IN DAIRY FERMENTATIONS.

Vienna, 1985. 11 p. tables, illus.

UNIDO-ID/WG.431/7

Abstract: UNIDO pub. Expert report on application of biotechnology in dairy products fermentation processes—covers (1) genetic engineering; manipulation of certain lactic acid microorganisms to combat contamination in milk, increase product safety and improve industrial cheese making (2) results of recent experiments. Recommendations, tables, illustrations, bibliography. Additional reference: biodeterioration.

ENGL

31.20

Microfiche number: 014321

00057

Eriksson, Karl-Erik

UNIDO

INDIA. BIOSCIENCE AND ENGINEERING. TECHNICAL REPORT. MISSION NOV./DEC. 1984.

DP/IND/80/003

Vienna, 1984. 12 p.

....

Abstract: UNIDO pub. Expert report on assistance in biotechnology to a chemical laboratory in Poona, India—covers (1) utilization of lignocellulose for production of microbial protein as animal feed (2) production of ethanol from (a) lignocellulosics (b) molasses. General comments. Additional references: biomass, agricultural wastes, microorganisms.

ENGL

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Microfiche number: 014359

00058

UNIDO

OAU/ECA EXPERT GROUP MEETING ON THE IMPLICATIONS OF NEW TECHNOLOGIES FOR THE IMPLEMENTATION OF THE LAGOS PLAN OF ACTION, MBABANE, SWAZILAND, 1984

THE PROMISE OF BIOTECHNOLOGY AND GENETIC ENGINEERING FOR AFRICA.

Vienna, 1985. 30 p.

UNIDO-UNIDO/IS.513

Abstract: UNIDO pub on potential benefits of biotechnology and genetic engineering for Africa—covers (1) biotechnological techniques and their applications in agriculture and livestock breeding; in developing countries with reference to production of vaccines (2) priorities in research and development with reference to the role of ICGEB and its affiliated research centres in regional cooperation and training assistance. Bibliography.

ENGL

35.50

Microfiche number: 014370

00059

Srinivasan, V.R.

UNIDO

INDIA. BIOSCIENCE AND ENGINEERING. FERMENTATION TECHNOLOGY. TECHNICAL REPORT.

DP/IND/80/003

Vienna, 1984. 11 p.

....

Abstract: UNIDO pub. Expert report on biotechnology research at a laboratory in India—covers (1) project background and progress; mid-term review; review of present state of studies and research programmes. Recommendations, list of documents. Additional references: biomass, enzymes, cellulose, fermentation, hydrolysis, glucose, molasses, ethanol.

ENGL

35.50

Microfiche number: 014397

00060

Green, J.A.

UNIDO

BANGLADESH. TECHNICAL REPORT: APPLICATION OF BIOTECHNOLOGY TO THE SOFTENING OF JUTE CUTTINGS.

DP/BGD/75/013

Vienna, 1985. 26 p.

UNIDO-DP/ID/SER.A/576

Abstract: UNIDO pub. Expert report on assistance in use of biotechnology for softening of jute cuttings in Bangladesh—covers (1) past biotechnological approaches (2) research and development programme (3) choice of technology, product development (4) equipment; training programmes. Recommendations, job description. Additional references: research centre, microbiology, microorganisms, enzymes.

ENGL

32.30

Microfiche number: 014491

00061

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 8.

Vienna, 1984. 78 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—covers (1) policy, news and events; country news; research, patents (2) applications in pharmaceutical industry, vaccines, livestock, agriculture, food production, chemicals, pollution control (3) bio-informatics (4) genetic conservation. Additional reference: single cell protein.

ENGL

35.50

Microfiche number: 014552

00062

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 9.

Vienna, 1984. 59 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—covers (1) policy, news and events; country news; research, patents (2) applications in pharmaceutical industry, livestock, agriculture, food production, chemicals, pollution control, biomass conversion (3) bio-informatics (4) relevant meetings. Additional references: social aspects, regulations, ICGEB, immunization, health.

ENGL

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Microfiche number: 014560

00063

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 10.

Vienna, 1984. 64 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—covers (1) policy, news and events; country news; research, patents (2) applications in pharmaceutical industry, livestock, agriculture, food production, chemicals (3) energy from biomass; pollution control (4) bio-informatics (5) relevant meetings. Additional references: social aspects, ICGEB, health, regulations, microbiology.

ENGL

35.60

Microfiche number: 014565

00064

Zimmermann, Burke K.

UNIDO

TRENDS IN WORLD BIOTECHNOLOGY. A REVIEW AND ANALYSIS OF ADVANCES IN TECHNOLOGY AND INDUSTRIAL DEVELOPMENT DURING 1982-1983 WITH PROJECTIONS TO THE FUTURE. GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR SUPPLEMENT.

Vienna, 1984. 28 p.

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Abstract: UNIDO pub on trends in world biotechnology—covers (1) historical perspective (2) technological advances in 1982 to 1983 in (a) basic science and methodology; human medicine (b) agriculture microbiology; biological pesticides; livestock improvement (c) industrial microbiology; biomass conversion; pollution control (3) industrial growth in developed countries; biotechnology transfer (4) industrial safety regulations (5) future outlook. Bibliography. Additional references: genetic engineering, industrial development, health, energy source.

ENGL

35.50

Microfiche number: 014575

00065

Akhtar, M. Waheed

UNIDO; TRINITY COLLEGE, GENETICS DEPARTMENT, DUBLIN

REPORT ON MOLECULAR CLONING OF CELLULOSE GENES.

Vienna, 1984. 24 p. illus.

....

Abstract: UNIDO pub. Expert report on research in genetic engineering with regard to cellulose substances—covers: results of research programmes and experiments conducted in Ireland on the breakdown of cellulosic substances by microbial cellulolytic enzymes for use in producing alcohol and protein rich biomass. Bibliography, illustrations. Additional reference: microorganisms.

ENGL

32.10

Microfiche number: 014681

00066

Saber, Mohamed Ali

UNIDO

EXPERT GROUP MEETING ON THE IMPLICATIONS OF NEW TECHNOLOGIES IN THE IMPLEMENTATION OF THE LAGOS PLAN OF ACTION AND THE PROGRAMME FOR THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA, MBABANE, SWAZILAND, 1984
BIOTECHNOLOGY AND GENETIC ENGINEERING IN HUMAN HEALTH.

Vienna, 1984. 2 p.

....

Abstract: UNIDO pub. Expert report on the role of biotechnology genetic engineering in human health—covers (1) applications of biotechnology (a) transfer of genetic materials from one organism to be recombined in other organisms (recombinant DNA) (b) fusion of cell able to produce a specific antibody, with another cell producing no antibodies (monoclonal antibodies) (c) molecular hybridisation (between DNA and its specific RNA), especially mRNA (2) work of the Bilhars research centre in Egypt. Additional references: training, research.

ENGL

35.50

Microfiche number: 014739

00067

Adeyemi, I.A.; Balugh, E.

UNIDO

EXPERT GROUP MEETING ON THE IMPLICATIONS OF NEW TECHNOLOGIES IN THE IMPLEMENTATION OF THE LAGOS PLAN OF ACTION AND THE PROGRAMME FOR THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA, MBABANE, SWAZILAND, 1984
BIOTECHNOLOGY IN FOOD PROCESSING—PROSPECTS IN NIGERIA.

Vienna, 1984. 22 p. diagrams.

....

Abstract: UNIDO pub. Expert report on development potential of application of biotechnology in food industry in Nigeria—covers (1) biotechnology in West Africa; fermentation of foods (i.a. gari, manufactured from cassava; ogi, prepared from maize, sorghum or millet; fermented alcoholic beverages (wine, and beer) (2) biotechnology education and research in Nigeria. Bibliography, flow charts.

ENGL

31.30

Microfiche number: 014740

00068

Winnacker, Ernst L.

UNIDO

BRAZIL. CENTRE FOR BIOTECHNOLOGY.

Vienna, 1984. 35 p. tables.

....

Abstract: UNIDO pub. Expert report on assistance in establishing a research centre for biotechnology in Brasil—covers (1) a training course given in molecular technology techniques involving the following experiments: purification of restriction enzymes; plasmid purification and transformation using advanced technology expression vectors; use of bacteriophage vectors and preparation of gene libraries (2) consultations on setting up a centre of biotechnology in Lorena (Sao Paolo) (3) proposed research programmes; specific objectives; equipment.

ENGL

35.60

Microfiche number: 014762

00069

Bu'Lock, John D.

UNIDO

INDIA. BIOSCIENCE AND ENGINEERING. TECHNICAL REPORT.

DP/IND/80/003

Vienna, 1985. 9 p.

....

Abstract: UNIDO pub. Expert report on assistance to biotechnology research in India—covers (1) the activities of a chemical laboratory in conversion of cellulose into glucose and of glucose and molasses into ethanol (2) production of enzymes by hydrolysis with highest cellulose level for use in food and in agro-industry (3) development of yeast strain and of immobilised yeast reactors; development of molasses alcohol (4) need to reinforce selection of microorganisms; production of starch for industrial exploitation and primary food items. Recommendations.

ENGL

35.60

Microfiche number: 014877

00070

Green, J.A.

UNIDO

BANGLADESH. APPLICATION OF BIOTECHNOLOGY TO THE SOFTENING OF JUTE CUTTINGS
(NO. 2). TECHNICAL REPORT.

DP/BGD/75/013

Vienna, 1985. 15 p.

UNIDO-DP/ID/SER.A/675

Abstract: UNIDO pub. Expert report on the application of biotechnology for softening jute cuttings in Bangladesh—(1) covers research and development work in areas of microbiology conducted at the Bangladesh jute research centre (2) reviews activities of the research programme. Recommendations, job description. Additional references: enzymes, natural fibres.

ENGL

32.30

Microfiche number: 014889

00071

Colwell, Rita R.

UNIDO

MARINE BIOTECHNOLOGY.

Vienna, 1985. 36 p.

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Abstract: UNIDO pub. Expert report on development potential of sea based biotechnology—covers (1) the role of genetic engineering in improving production of fish and shellfish (2) microbiology techniques and scientific experiments for control of diseases in aquaculture; production of vaccines, cultivation of seaweeds; substances to be used by the pharmaceutical industry; marine toxins to be used as insecticides (3) the problem of marine pollution by industrial chemicals; engineering of microorganisms added to industrial wastes to provoke biodeterioration; enzymes manipulation (4) proposals for developing countries. Recommendations, bibliography.

ENGL

36.60

Microfiche number: 014955

00072

Uhakrabarty, A.M.

UNIDO

GENETIC ENGINEERING AND PROBLEMS OF ENVIRONMENTAL POLLUTION.

Vienna, 1985. 47 p. tables, illus.

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Abstract: UNIDO pub. Expert report on genetic engineering and pollution control—covers (1) decomposition of chlorinated compounds by microorganisms and degradation of toxic chemicals in contaminated environment (2) the action of degradative genes on hydrocarbons (3) methods for conducting transposon mutagenesis and gene cloning, gene amplification and gene duplication (4) construction of strains, the results of laboratory experiments; gene manipulation techniques. Bibliography. Additional references: microorganisms, biodeterioration.

ENGL

35.60

Microfiche number: 014962

00073

Heden, Carl-Goeran

UNIDO

CULTIVATION TECHNOLOGY FOR THE BENEFIT OF RURAL DEVELOPMENT. A BIOMASS-BASED STRATEGY. DISCUSSION PAPER 2.

Vienna, 1984. 9 p.

....

Abstract: UNIDO pub. Expert report on biotechnology, with special reference to a biomass based cultivation technology serving rural development—covers (1) plant tissue cell culture; genetic engineering applicable on crops in developing countries; required research work and quality control (2) mushroom cultivation; fermentation foods (3) cooperation in research; the role of UNIDO. Additional references: microbiology, agriculture.

ENGL

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Microfiche number: 014979

00074

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 11.

Vienna, 1985. 101 p.

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Abstract: UNIDO pub reporting on developments in the fields of biotechnology and genetic engineering—covers (1) relevant technology policy; social aspects; industrial applications; events (2) country news (3) research; health aspects; vaccines; livestock; agriculture; food; energy; environment (4) patents and intellectual property issues (5) bio-informatics (6) meetings, documentation. Bibliography.

ENGL

35.50

Microfiche number: 014991

00075

Falaschi, Arturo

UNIDO

THE ROLE OF THE NATIONAL RESEARCH COUNCIL OF ITALY IN GENETIC ENGINEERING AND BIOTECHNOLOGY.

Vienna, 1985. 12 p.

....

Abstract: UNIDO pub. Expert report on the role of a national research centre in Italy in the field of genetic engineering—briefly describes (1) administrative aspects and organizational aspects of the National Research Council, its activities in promotion of projects (2) recent and current research programmes. Additional reference: biotechnology.

ENGL

35.50

Microfiche number: 015051

00076

Colwell, Rita R.

UNIDO

MARINE BIOTECHNOLOGY AND THE DEVELOPING COUNTRIES.

Vienna, 1986. 25 p.

UNIDO-UNIDO/IS.599

Abstract: UNIDO pub. Expert report on marine biotechnology and the developing countries (reference: sea)— covers (1) aquaculture; experience, main products of fish and shellfish; development potential (2) vaccines production (3) marine pharmaceuticals (4) marine toxins (5) industrial chemicals (6) need to promote biodegradation of man-made compounds in the marine environment in order to reduce marine pollution and increase product safety of fish (7) plan of action for island and riparian DCs; suggestions regarding role of UNIDO. Bibliography.

ENGL

35.60

Microfiche number: 015125

00077

McConnell, David J.; Riasuddin, Sheikh; Wu, Ray; Zilinskas, Raymond A.

UNIDO

UNIDO SYMPOSIUM HELD DURING THE 160TH ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS)
CAPABILITY BUILDING IN BIOTECHNOLOGY AND GENETIC ENGINEERING IN DEVELOPING COUNTRIES.

Vienna, 1986. iii, 114 p.

UNIDO-UNIDO/IS.608

Abstract: UNIDO pub on capability building in biotechnology and genetic engineering in developing countries— contains four papers covering: basic ingredients required for realizing development potential; objectives of the ICGEB; steps in acquisition of knowhow; improvement of relevant education, training and information exchange; research and development; international technology transfer; bioscience-based industry. Bibliographies.

ENGL

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Microfiche number: 015308

00078

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 13.

Vienna, 1985. 70 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—covers (1) policy, news and events; country news; research, patents (2) applications in pharmaceutical industry, livestock, agriculture, food production and processing, chemicals, (3) energy; pollution control (4) bioinformatics, equipment (5) relevant meetings. Additional reference: industrial safety.

ENGL

35.50

Microfiche number: 015357

00079

Pettersson, Ulf

UNIDO

UNIDO REPORT ON PROSPECTS FOR BIOTECHNOLOGY IN KUWAIT. PART I: BIOMEDICINE.

Vienna, 1986. 8 p.

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Abstract: UNIDO pub. Expert report on development potential of biotechnology in Kuwait— covers (1) general background, research, education facilities, manpower in the fields of microbiology, biotechnology, laboratory resources (2) existing infrastructure, technical information sources, technical personnel needs (3) proposals for specific education and training programmes and research activities in science, technology and genetic engineering. Recommendations.

ENGL

35.50

Microfiche number: 015377

00080

Hopfenberg, Harold B.

UNIDO

INDIA. BIOSCIENCE AND ENGINEERING. TECHNICAL REPORT.

DP/IND/80/003

Vienna, 1986. 13 p.

....

Abstract: UNIDO pub. Expert report on biotechnology with special emphasis on pest control based on experience in India—covers (1) the controlled release of the larvacide ABATE (temephos) to mosquito-larvae infested water sources and of the pesticide Furadan 3 G (Carbofuran) to rice paddies (2) laboratory research and development; chemical analysis; models testing. Conclusions and recommendations.

ENGL

11.30

Microfiche number: 015447

00081

Srinivasan, V.R.

UNIDO

INDIA. BIOSCIENCE AND ENGINEERING. TECHNICAL REPORT.

DP/IND/80/003

Vienna, 1986. 8 p.

....

Abstract: UNIDO pub. Expert report on biotechnology and engineering in India—covers: project background; research and development on cellulose biotechnology with emphasis on the evaluation of mutants of penicillium funiculosum for production of enzymes; ethanol production. Recommendations.

ENGL

32.10

Microfiche number: 015448

00082

Karny, Geoffrey M.; Einaudi, Carol P.; Lipsey, Charles E.; Woodworth, Alesie M.

UNIDO

INFORMAL UNIDO/WHO/UNEP WORKING GROUP ON BIOTECHNOLOGY SAFETY. VIENNA, 1986.
AN INTERNATIONAL APPROACH TO BIOTECHNOLOGY SAFETY.

Vienna, 1986. 178 p. diagrams.

UNIDO-UNIDO/IS.627

Abstract: UNIDO pub. Expert report on biotechnology industrial safety—covers (1) project background; risk identification and assessment methodology (2) regulations of genetic engineering in laboratories; research and development (3) risks and regulations of large-scale operations: relevant legislation on workers industrial safety in USA, EEC, UK and Japan (4) pollution control; environmental applications, relevant international cooperation. Recommendations. Appends glossary, Department of Health Guidelines for research on recombinant DNA molecules. Additional references: ICGEB, UNIDO, WHO, UNEP.

ENGL

35.50

Microfiche number: 015489

00083

Ryu, Dewey D.Y.

UNIDO

KUWAIT. DRAFT NATIONAL BIOTECHNOLOGY PROGRAMME DEVELOPMENT. TECHNICAL SITE VISITATION REPORT AND RECOMMENDATION.

Vienna, 1985. 22 p. diagram.

....

Abstract: UNIDO pub. Expert report on the national biotechnology programme in Kuwait—covers (1) project background; economic conditions (2) research and development; technical education; training; industry and higher education (3) biotechnology research development potential; organisational aspects (4) research manpower development programme. Evaluation and recommendations. Additional references: biochemistry, genetic engineering, infrastructure.

ENGL

35.50

Microfiche number: 015521

00084

UNIDO

INFORMAL UNIDO/WHO/UNEP WORKING GROUP ON BIOTECHNOLOGY SAFETY, VIENNA, 1986 BIOSAFETY GUIDELINES FOR MANUFACTURE OF VACCINES AND BIOLOGICALS.

Vienna, 1986. 5 p.

UNIDO-ID/WG.463/2

Abstract: UNIDO pub on industrial safety guidelines in producing vaccines and biological products (reference: biotechnology)—covers: the WHO programme for vaccine development; vaccine technology transfer to developing countries; research and development priority areas (i.a. hepatitis, polio, tuberculosis).

ENGL

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Microfiche number: 015538

00085

UNIDO

INFORMAL UNIDO/WHO/UNEP WORKING GROUP ON BIOTECHNOLOGY SAFETY, VIENNA, 1986 SAFETY GUIDELINES AND PROCEDURES FOR BIOSCIENCE-BASED INDUSTRY AND OTHER APPLIED MICROBIOLOGY

Vienna, 1986. 13 p.

UNIDO-ID/WG.463/1

Abstract: UNIDO pub on industrial safety for biotechnology research and development and applied microbiology —covers (1) project objectives (2) risk and risk assessment, the IBRD guidelines; the WHO classification system (3) conjectural risks associated with applied biotechnology. Additional references: UNIDO, UNEP, genetic engineering, regulations.

ENGL

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Microfiche number: 015539

00086

UNIDO

INFORMAL UNIDO/WHO/UNEP WORKING GROUP ON BIOTECHNOLOGY SAFETY, VIENNA, 1986 REPORT. (WORKING GROUP ON BIOTECHNOLOGY SAFETY).

Vienna, 1986. 19 p.

UNIDO-ID/WG.463/3

Abstract: UNIDO pub. Report of a meeting on health, environmental and industrial safety aspects of biotechnology—covers (1) relevant concepts and positions of UNIDO, WHO and UNEP (2) risks and regulations pertaining to laboratory work and to large scale biotechnology processes (3) risks of environmental applications (4) elements for construction of minimal guidelines. Recommendations, agenda, list of participants, list of documents. Additional references: genetic engineering, product safety, toxicity, research, developing countries.

ENGL

35.50

Microfiche number: 015622

00087

Balasubramaniam, S.

UNIDO

TRANSFER OF TECHNOLOGY FOR THE GENETIC IMPROVEMENT OF MEDICINAL PLANTS.

Vienna, 1986. 9 p.

.....

Abstract: UNIDO pub. Expert report on genetic engineering with regard to medicinal plants—covers (1) compiling and updating information on medicinal plants (2) collection, maintenance and long term preservation of their genetic diversity (3) selection and conventional breeding of a priority list of plants (4) mutation and ploidy breeding (5) in vitro culture techniques and micropropagation of genetically improved plants (6) protoplast fusion and recombinant DNA transfer techniques. Recommendations, bibliography. Additional references: microbiology, technology transfer, research programmes.

ENGL

31.10

Microfiche number: 015635

00088

Delente, Jacques

UNIDO; CHEMBIOTECH

LOCAL BIOREAGENT PRODUCTION IN DEVELOPING COUNTRIES.

Vienna, 1987. iv, 48 p. tables, diagrams.

UNIDO-IPCT.22

Abstract: UNIDO pub. Expert report on potential domestic production of bioreagents required for genetic engineering technology in developing countries (reference: biochemistry)—covers (1) background of survey conducted in Thailand and USA (2) Nucleid acid processing enzymes (3) oligonucleotides and synthetic genes (4) host strains, plasmids, DNA, etc. (5) rationale for local production; economic aspects, costs. Statistics, diagrams. Annexes (a) list of prices for genetic engineering products (b) purification procedure for PST I (c) procedure for manual synthesis of deoxyoligonucleotides. Additional references: research, training.

ENGL

35.60

Microfiche number: 015665

00089

Lightfoot, Edwin

UNIDO

(R) INDIA. BIOSCIENCE AND ENGINEERING. TECHNICAL REPORT. MISSION 15-28 MARCH 1986.

DP/IND/80/003

Vienna, 1986. 7 p.

.....

Abstract: UNIDO pub. Expert report on assistance to a laboratory in India in identification of promising research programmes in biotechnology—covers (1) activities of the multi-disciplinary chemical research centre at Pune; staff, qualifications, knowhow (2) projects concerning glucose and enzymes; ethanol production from molasses; antibiotic manufacture involving large-scale fermentation processes; chemical reactors; development potential; co-operation with chemical industry. Additional reference: biochemistry. Restricted.

ENGL

35.50

Microfiche number: 015676

00090

UNIDO

MEETING OF THE ADVISORY PANEL ON PREVENTIVE MEDICINE, 4TH, OTTAWA, 1986
NEW TRENDS FOR VACCINE PRODUCTION AND UNIDO PROGRAMME ON INDUSTRIAL PRODUCTION OF BIOLOGICALS.

Vienna, 1986. 10 p.

UNIDO-UNIDO/10.630

Abstract: UNIDO pub on new trends in vaccines production, with special reference to a UNIDO programme for relevant biotechnology—covers (1) the need for assuring an adequate supply of vaccines for the WHO Expanded Programme on Immunisation (EPI) for developing countries; experience of domestic production in DCs (2) UNIDO's programme on industrial production of biologicals (based on experience in Netherlands) (3) research and development and progress in quality control (4) goals of genetic engineering of biological systems; important biologicals already being produced or to be produced in the near future (5) specific R&D approaches for new biotechnology vaccines.

ENGL

35.60

Microfiche number: 015718

00091

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 12.

Vienna, 1985. 54 p.

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Abstract: UNIDO pub reporting on developments in the fields of genetic engineering and biotechnology—covers (1) policy news and other events; country news; research; patents (2) applications in pharmaceutical industry, tests for Acquired Immune Deficiency Syndrome (AIDS), vaccines; livestock; mariculture advanced technology; agriculture (3) energy and environment (4) bio-informatics; relevant meetings. Bibliography.

ENGL

35.60

Microfiche number: 015730

00092

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 14.

Vienna, 1985. 47 p.

////

Abstract: UNIDO pub reporting on developments in the fields of biotechnology and genetic engineering—covers (1) relevant technology policy; social aspects; industrial applications; events (2) country news (3) research; health aspects; vaccines; chemicals, livestock; agriculture; food; energy; environment (4) patents and intellectual property issues (5) bio-informatics (6) meetings; documentation. Bibliography.

ENGL

35.60

Microfiche number: 015731

00093

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 15.

Vienna, 1986. 38 p.

////

Abstract: UNIDO pub reporting on developments in the fields of biotechnology and genetic engineering—covers (1) relevant technology policy; social aspects; events (2) country news (3) research (4) industrial applications: pharmaceuticals; vaccines; livestock; food production, energy; environment; industrial equipment (5) patents and intellectual property issues (6) bio-informatics (7) meetings.

ENGL

35.60

Microfiche number: 015732

00094

Wu, Madeline

UNIDO

EXPERT GROUP MEETING ON INDUSTRIAL GROWING AND PROCESSING OF MARINE ALGAE,
RIGA, 1986

APPLICATION OF BIOTECHNOLOGY IN ALGAL MARICULTURE.

Vienna, 1986. 33 p. diagrams, illus.

....

Abstract: UNIDO pub on the application of biotechnology in seaweed mariculture—covers (1) background of seaweed use as food, feed and fertilizer; industrial application of phycocolloids; seaweed mariculture and farming (2) research; genetic engineering to obtain improved stocks for use in mariculture, with special reference to the unicellular green algae *Chlamydomonas reinhardtii*; relevant testing; results. Process statistics, diagrams, bibliography, illustrations.

ENGL

31.10

Microfiche number: 015830

00095

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 16.

Vienna, 1986. 42 p. tables.

////

Abstract: UNIDO pub giving information on developments in the fields of genetic engineering and biotechnology—covers (1) technology policy, social aspects, regulations (2) country news (3) research, new instruments (4) applications; pharmaceuticals, livestock, agriculture, food, chemicals, pollution control, waste disposal, pest control (5) patents, patent law, legal aspects (6) bio-informatics (7) meetings. Additional references: chemistry, computer programmes, health.

ENGL

35.50

Microfiche number: 015992

00096

Bu'Lock, J.D.

UNIDO

(R) INDIA. BIOSCIENCE AND ENGINEERING. MOLASSES FERMENTATIONS. TECHNICAL REPORT.

DP/IND/80/003

Vienna, 1987. 16 p. graphs, diagrams, illus.

....

Abstract: UNIDO pub. Expert report on molasses fermentation in India (reference: biotechnology)—describes fermentation process with a view to constructing and operating a demonstration unit, covering: ethanol distilling; yeast; contamination of catalyst by unwanted microorganisms; selected process arrangements; experiments etc. Restricted.

ENGL

35.50

Microfiche number: 016292

00097

Bu'Lock, J.D.

UNIDO

(R) INDIA. BIOSCIENCE AND ENGINEERING. CONSULTANCY REPORT.

DP/IND/80/003

Vienna, 1988. 8 p.

....

Abstract: UNIDO pub. Expert report on biotechnology in India—covers (1) cellulose/cellulase biotechnology project (2) ethanol fermentation appropriate technology: bioconversion of molasses as a by-product of Indian cane sugar processing (3) yeast selection. Additional references: laboratory, biochemistry, energy source, enzymes, choice of technology, recycling. Restricted.

ENGL

35.50

Microfiche number: 016294

00101

Ellwood, D.C.

UNIDO

(R) REPORT ON GENETIC MANIPULATION MISSION IN INDIA AND BRAZIL: JULY 1987.

Vienna, 1987. 4 p.

....

Abstract: UNIDO pub. Expert report on regulations regarding biotechnology and genetic engineering, with special reference to practice in India and Brasil—covers safety implications of such technology; visits to microbiology research centres and laboratories; problems of microbial contamination; use of OECD guidelines; potential training assistance from the ICGEB. Additional references: pollution control, legal aspects, enzymes, fermentation, microorganisms.

Restricted.

ENGL

35.50

Microfiche number: 016567

00102

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 18.

Vienna, 1987. iv, 52 p. table.

////

Abstract: UNIDO pub giving information on developments in genetic engineering and biotechnology—covers (1) policy, news and events (2) country news (3) research on human, animal and plant genes; yeast and fungus genes; viral genes (4) applications in pharmaceutical industry and medicine (5) patents and intellectual property issues (6) bio-informatics (7) genetics and the forestry of the future. Bibliographies. Additional references: protein, vaccines, livestock, agriculture, enzymes, microbiology, ICGEB.

ENGL

35.50

Microfiche number: 016656

00103

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 19.

Vienna, 1987. iii, 78 p. tables, graphs.

////

Abstract: UNIDO pub giving information on developments in genetic engineering and biotechnology—covers (1) policy, news and events (2) country news (3) various research (4) applications in pharmaceutical industry, medicine, livestock, agriculture, food industry, etc. (5) patents issues (6) bio-informatics (7) the geopolitics of genetic resources (8) new approaches for agriculture in developing countries. Bibliographies, list of meetings. Additional references: ICGEB, health, enzymes.

ENGL

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Microfiche number: 016657

00104

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 20.

Vienna, 1987. iii, 65 p. graph.

////

Abstract: UNIDO pub giving information on developments in genetic engineering and biotechnology—covers (1) policy, news and events (2) country news (3) various research being conducted (4) applications in medicine, pharmaceutical industry, livestock, agriculture, environment (5) patents issues (6) bioinformatics. Bibliographies, list of meetings. Additional references: pollution control, health, microbiology, role of UNIDO.

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Microfiche number: 016658

00105

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 21.

Vienna, 1987. iv, 81 p. tables.

////

Abstract: UNIDO pub giving informations on developments in the fields of genetic engineering and biotechnology—covers (1) policy, news and events (2) country news (3) various genetic research (4) applications in medicine, pharmaceutical industry, livestock, agriculture, food industry, insecticides, environment, etc. (5) patents issues (6) bioinformatics (7) lesser known plants of potential use in agriculture and forestry. List of meetings. Additional references: health, recycling, vaccines, antibiotics, role of UNIDO.

ENGL

35.50

Microfiche number: 016659

00106

Lipov, Yu.; Ruthner, O.; Wick, R.; Kozhevnikov, G.

UNIDO

INTERNATIONAL SYMPOSIUM ON THE CONTINUOUS INDUSTRIAL HYDROPONIC CROP PRODUCTION SYSTEM IN ARTIFICIAL CLIMATE, MOSCOW, 1988

NEW PRINCIPLES OF CULTIVATION OF AGRICULTURAL CROPS ON THE BASIS OF MODULAR ROTARY CONVEYOR HYDROPONIC SYSTEMS.

Vienna, 1988. 42 p. diagrams, illus.

UNIDO-ID/WG.479/1

Abstract: UNIDO pub on cultivation of agricultural crops on the basis of modular rotary conveyor hydroponic system (reference: biotechnology)—covers (1) vegetable biomass production on artificial substrates as a result of soil-science, plants physiology and agrochemistry (2) phytotechnology as a set of principles of integrated biotechnology; its importance for arid zones (3) phytotechnology as based on the principle that carbonic acid, water mineral substances and electromagnetic radiation energy by means of photosynthesis are transformed into the carbohydrates and oxygen. Diagrams. Additional references: agriculture, food, food production, crop yield, environment, advanced technology, developing countries.

ENGL

30.20

Microfiche number: 016820

00107

McConnell, David J.

UNIDO

(R) VIETNAM. BIOTECHNOLOGY POLICIES AND PROGRAMMES.

Vienna, 1988. 22 p.

:-:-

Abstract: UNIDO pub. Expert report on biotechnology government policy in Vietnam—covers (1) economic conditions: export structure; agriculture (2) research centre: plant biotechnology; enzymes; micropropagation of potatoes; microbiological biotechnology (3) government contribution; research, training programmes. Recommendations. Restricted.

ENGL

35.50

Microfiche number: 016833

00108

UNIDO

WORKSHOP ON BIOTECHNOLOGY FOR LATIN AMERICA AND CARIBBEAN COUNTRIES ("BIOTECHNOLOGY: AN OPPORTUNITY FOR LATIN AMERICA AND THE CARIBBEAN"), HAVANA, 1988
REPORT. (WORKSHOP ON BIOTECHNOLOGY FOR LATIN AMERICA AND CARIBBEAN COUNTRIES).--
INFORME. (SEMINARIO SOBRE BIOTECNOLOGIA PARA PAISES DE AMERICA LATINA Y EL CARIBE).

Vienna, 1988. 22 p.

UNIDO-IPCT.67

Abstract: UNIDO pub. Report of a workshop on biotechnology in Latin America and the Caribbean—covers group reports on plant biotechnology, its human application, industrial microbiology and biomass. Appends list of participants and work programme. Additional references: fertiliser, pest control, seeds, advanced technology, information exchange, role of UNIDO.

ENGL SPAN

35.50

Microfiche number: 016893

00109

Chakrabarty, Ananda

UNIDO

REPORT ON BIOTECHNOLOGY DEVELOPMENT IN ARGENTINA: PRESENT STATUS AND FUTURE POTENTIALS.

Vienna, 1988. 8 p.

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Abstract: UNIDO pub. Expert report regarding biotechnology development in Argentina—(1) surveys research and development work in genetic engineering in (a) university laboratories and (b) the pharmaceutical industry (2) covers financial aspects and human resources. Recommendations. Additional references: biochemistry, industry and higher education.

ENGL

35.50

Microfiche number: 016923

00110

UNIDO

GENETIC ENGINEERING AND BIOTECHNOLOGY MONITOR. ISSUE NUMBER 22.

Vienna, 1988. iv, 74 p. tables, graphs.

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Abstract: UNIDO pub giving information from the field of genetic engineering and biotechnology—covers (1) policy news; regulations and attendant issues; social aspects (2) country news (3) research on genes (human, animal, plant, algae, bacterial, viral) (4) applications in pharmaceuticals and medicine, in livestock and agriculture, food industry and with regard to energy metals recovery, waste disposal, etc. (5) patents and intellectual property issues (6) bio-informatics. List of meetings. Additional references: environment, microbiology.

ENGL

35.50

Microfiche number: 016975

00111

Zilinskas, Raymond A.

UNIDO

BIOTECHNOLOGY AND THE THIRD WORLD: THE MISSING LINK BETWEEN RESEARCH AND APPLICATIONS.

Vienna, 1988. i, 23 p. diagrams.

....

Abstract: UNIDO pub on biotechnology in developing countries with special emphasis on increasing research capabilities—covers (1) knowhow available (2) laboratories, equipment, instruments (3) research and development; training (4) advanced technology (5) role of UNIDO and of UN in sponsoring relevant activities; government policies; technical assistance (6) financing (7) case studies on Egypt, Thailand and Venezuela. Bibliography. Diagram.

ENGL

35.50

Microfiche number: 017150

00112

Therwath, A.

UNIDO

(R) INDIA. BIOSCIENCE AND ENGINEERING. TECHNICAL REPORT.

DP/IND/80/003

Vienna, 1988. 3 p.

....

Abstract: UNIDO pub. Expert report on genetic engineering in India with special reference to biotechnology— covers (1) molecular cloning of the xylanase cellular genes from streptomyces (2) enzymes; laboratory; experiments; research and development. Restricted.

ENGL

35.50

Microfiche number: 017194

00113

Bungay, Henry R.

UNIDO

PHILIPPINES. FERMENTATION PROCESSES, MANPOWER TRAINING, AND SUGGESTIONS FOR NEW BIOTECHNOLOGY. TECHNICAL REPORT.

DP/PHI/87/019

Vienna, 1988. 38 p.

UNIDO-DP/ID/SER.A/1099

Abstract: UNIDO pub. Expert report on fermentation, manpower training and new biotechnology in Philippines—covers (1) antibiotics; chemicals and ingredients for pharmaceuticals (2) human resources and manpower needs (3) teaching with computers. Recommendations. Additional references: quality control, cooling, waste utilisation, enzymes, equipment, appropriate technology.

ENGL

35.60

Microfiche number: 017240

00114

Fransman, Martin

UNIDO

BIOTECHNOLOGY—A GUIDE TO THE IMPLICATIONS OF THIS SET OF TECHNOLOGIES FOR INDUSTRIAL POLICY-MAKERS IN DEVELOPING COUNTRIES.

Vienna, 1989. 35 p.

....

Abstract: UNIDO pub on the implications of biotechnology on industrial policy makers in developing countries—covers (1) background; old and new biotechnologies (2) capabilities; and assets necessary to appropriate economic rent from biotechnology: scientific capabilities; appropriate research programmes (including molecular biology); chemistry, microbiology, informatics (3) the diffusion biotechnology; increasing productivity of vegetable oils sources (4) constraints (5) import of biotechnology at the level of industrial enterprises (6) realizing economies of scope (7) international aspects (8) industrial applications of biotechnology in global perspective (9) cooperation among DCs. Bibliography.

ENGL

35.50

Microfiche number: 017301

00115

Therwath, A.

UNIDO

PHILIPPINES. RELEVANCE OF GENETIC ENGINEERING TO THE PHILIPPINE HEALTH PROGRAM AND FOOD INDUSTRY IN THE PHILIPPINES. TECHNICAL REPORT.

DP/PHI/87/019

Vienna, 1988. i, 54 p.

UNIDO-DP/ID/SER.A/1093

Abstract: UNIDO pub. Expert report on the role of genetic engineering in the health service and food industry in the Philippines—covers (1) a survey of teaching, research and development in biotechnology in general and genetic engineering in particular (2) recommendations concerning (a) the training of manpower (b) the establishment of small scale industry producing plastics ware and restriction enzymes for laboratories (c) the shellfish industry (3) proposals for various projects, regarding i.a. technology required and costs. Additional references: plastics industry, pharmaceuticals, medicinal plants, small scale industry.

ENGL

35.50

Microfiche number: 017402

00116

Peterfy, F.

UNIDO

(R) PHILIPPINES. BIOTECHNOLOGY FOR PRODUCTION OF DIAGNOSTICS. TECHNICAL REPORT.

DP/PHI/87/019

Vienna, 1989. 48 p., graphs, diagrams, illus. .

UNIDO-DP/ID/SER.A/1188

Abstract: UNIDO pub. Expert report on assistance to pharmaceutical industry in the Philippines with special reference to the use of biotechnology for production of diagnostics—covers (1) research and development in the field of antibody based diagnostics (2) reagents for hepatitis B surface antigen testing (3) blood typing reagents. Diagrams, graphs, list of priorities. Additional references: health service, genetic engineering, laboratory, equipment. Restricted.

ENGL

35.60

Microfiche number: 017510

00117

Varadarajan, S.

UNIDO

BIOTECHNOLOGY-BASED DEVELOPMENT. OPPORTUNITIES AND ISSUES IN TECHNOLOGY TRANSFER AND COMMERCIALIZATION.

Vienna, 1989. i, 16 p.

UNIDO-IPCT.102

Abstract: UNIDO pub. Expert report on opportunities and problems arising from technology transfer and application of biotechnology—covers (1) features and requirements for the use of biotechnology in developed countries and in developing countries, regarding i.a. consequences for human health and fertility, environmental quality and agriculture (2) conditions for commercialization, such as industrial safety and a suitable institutional framework. Additional reference: genetic engineering.

ENGL

35.50

Microfiche number: 017645

00118

Singleton, F.L.; Kramer, J.G.

UNIDO

BIOTECHNOLOGY OF MARINE ALGAE: OPPORTUNITIES FOR DEVELOPING COUNTRIES.

Vienna, 1989. 22 p.

....

Abstract: UNIDO pub. Expert report on the use of biotechnology for marine seaweed in developing countries— covers (1) the potential of seafood resources, such as finfish, shellfish and algae in coastal areas (2) possibilities of their cultivation and advances in the genetic engineering of microalgae as a raw material for industrial production of special chemicals, such as phycocolloids, nutritional supplements, vitamins, fertilizers and pharmaceuticals. Bibliography.

ENGL

31.10

Microfiche number: 017646

00119

Chater, K.F.; Bibb, M.J.; Kieser, T.; Kieser, H.M.; Bruton, C.J.

UNIDO

REPORT OF WORK FOR THE PROVISION OF SERVICES RELATING TO THE ICGEB PRACTICAL LABORATORY COURSE ON GENETIC MANIPULATION OF STREPTOMYCES, IN WUHAN, PEOPLE'S REPUBLIC OF CHINA BY STAFF OF THE JOHN INNES INSTITUTE.

GE/GLO/86/001

Vienna, 1989. 54 p., tables, diagrams.

....

Abstract: UNIDO pub. Expert report on a further training programme on genetic engineering of streptomyces in China—covers (1) organizational aspects, costs and evaluation of the course (2) experiments carried out and lectures held, dealing with biotechnological research and development, such as genetic analysis, cloning, manipulation of biosynthetic genes for antibiotics, etc. List of participants, illustrations. Additional references: pharmaceuticals, training programmes.

ENGL

35.50

Microfiche number: 017647

00120

Bosadjiev, Ludmil G.; Bineva, Ilina L.; Kjurkchiev, Ivan I.

UNIDO

(R) MONGOLIA. CONSOLIDATION OF THE BLOOD FRACTIONATION UNIT AND INTRODUCTION OF A NEW TECHNOLOGY.

DP/MON/87/003

Viennc, 1989. 31 p., tables, diagrams.

UNIDO-DP/ID/SER.A/1252

Abstract: UNIDO pub. Expert report on consolidation of blood fractionation unit in Mongolia PR (reference: biotechnology)—covers (1) assessment of previous project implementation (2) programme for theoretical and practical training of local staff in the production of blood derivatives (lectures) (3) the follow-up programme 'Biomed'; relevant advanced technology. Recommendations. Diagrams, statistics. Additional references: experiment, laboratory, microbiology, medical equipment, health, hygiene, chemical analysis. Restricted.

ENGL

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Microfiche number: 017735

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- APPLICATION DU GENIE GENETIQUE ET DE LA BIOTECHNOLOGIE A LA PRODUCTION DE VACCINS AMELIORES POUR L'HOMME ET LES ANIMAUX, NOTAMMENT EN CE QUI CONCERNE LES MALADIES TROPICALES.

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