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FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Distribution Statement:Approved for public release; distribution is unlimited.

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Human Cloning

View Full Text: (pdf) - 128 KB -

https://www.dtic.mil/DOAC/document?document=ADA462092&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a462092.pdf

Accession Number: ADA462092

Personal Author(s): Johnson, Judith A ; Williams, Erin D

Corporate Author: LIBRARY OF CONGRESS WASHINGTON DC CONGRESSIONAL RESEARCH SERVICE

Report Date: 20 Jul 2006

Abstract: (U) In December 2005, an investigation by Seoul National University, South Korea, found that scientist Hwang Woo Suk had fabricated results on deriving patient matched stem cells from cloned embryos a major setback for the field. In May 2005 Hwang had announced a significant advance in creating human embryos using cloning methods and in isolating human stem cells from cloned embryos. These developments have contributed to the debate in the 109th Congress on the moral and ethical implications of human cloning. Scientists in other labs, including Harvard University and the University of California at San Francisco, intend to produce cloned human embryos in order to derive stem cells for medical research on diabetes, Parkinsons disease, and other diseases. President Bush announced in August 2001 that for the first time federal funds would be used to support research on human embryonic stem cells, but funding would be limited to existing stem cell lines. Federal funds can not be used for the cloning of human embryos for any purpose, including stem cell research. In July 2002 the Presidents Council on Bioethics released its report on human cloning which unanimously recommended a ban on reproductive cloning and, by a vote of 10 to 7, a four-year moratorium on cloning for medical research purposes. The ethical issues surrounding reproductive cloning (commodification, safety, identity), and therapeutic cloning (embryos moral status, relief of suffering), impact various proposals for regulation, restrictions, bans, and uses of federal funding. In January 2002, the National Academies released Scientific and Medical Aspects of Human Reproductive Cloning. It recommended that the U.S. ban human reproductive cloning aimed at creating a child. It suggested the ban be enforceable and carry substantial penalties.

Abstract Classification:Unclassified

Descriptive Note: Congressional rept.

Pages:28 Page(s)

Report Number: CRS-RL31358 *(CRSRL31358)* , XJ - CRS/DC *(XJCRSDC)*

Monitor Series: CRS/DC *(CRSDC)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Distribution Statement:Approved for public release; distribution is unlimited.

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Endometase in Androgen-Repressed Human Prostate Cancer

View Full Text: (pdf) - 15 MB -

https://www.dtic.mil/DOAC/document?document=ADA437246&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a437246.pdf

Accession Number: ADA437246

Personal Author(s): Sang, Qing-Xiang A

Corporate Author: FLORIDA STATE UNIV TALLAHASSEE

Report Date: Mar 2005

Abstract: (U) Prostate cancer invasion and metastasis is the leading cause of patient death. We reported the discovery, cloning, and characterization of human matrix metalloproteinase-26 (MMP- 26), endometase. We have been testing three specific hypotheses: 1) The expression levels of MMP-26 is correlated with the metastatic potentials and the degrees of malignancy of human prostate cells; 2)MMP-26 has unique structure and enzymatic function; 3) MMP-26 enhances prostate cancer invasion by digesting extracellular matrix proteins and inactivating serine proteinase inhibitors, and specific inhibitors of MMP-26 block prostate cancer invasion. We report that levels of MMP-26 protein in human prostate carcinomas and high-grade prostate intraepithelial neoplasia from multiple patients were significantly higher than those in prostatitis, benign prostate hyperplasia, and normal prostate glandular tissues. Prostate cancer cells transfected with MMP-26 cDNA are more invasive and with an inactive mutant are less invasive than the parental cell lines. MMP-26 promoted prostate cancer invasion via activation of pro-gelatinase B/MMP-9. The endometase active site has an intermediate S1' pocket using synthetic MMP inhibitors. Some new synthetic MMP inhibitors are stable in cell culture media and can block the invasion of prostate cancer cells. Papers published by Sang lab are attached.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 25 Feb 2004-25 Feb 2005

Pages:124 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-02-1-0238 *(DAMD170210238)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Endometase in Androgen-Repressed Human Prostate Cancer

View Full Text: (pdf) - 5 MB -

https://www.dtic.mil/DOAC/document?document=ADA425166&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a425166.pdf

Accession Number: ADA425166

Personal Author(s): Sang, Qing-Xiang A

Corporate Author: FLORIDA STATE UNIV TALLAHASSEE

Report Date: Mar 2004

Abstract: (U) The spread of prostate cancer cells to other parts of the body is the leading cause of patient death. In 2000, we reported the discovery, cloning, and characterization of human matrix metalloproteinase-26 (MMP-26), endometase. We have been testing three specific hypotheses: 1) The expression levels of MMP-26 is correlated with the metastatic potentials and the degrees of malignancy of human prostate cells; 2) MMP-26 has unique structure and enzymatic function; 3) MMP-26 enhances prostate cancer invasion by digesting extracellular matrix proteins and inactivating serine proteinase inhibitors, and specific inhibitors of MMP-26 block prostate cancer invasion. We have showed that the levels of MMP-26 protein in human prostate carcinomas from multiple patients were significantly higher than those in prostatitis, benign prostate hyperplasia, and normal prostate glandular tissues. Human breast carcinoma in situ also expressed high levels of MMP-26 protein. Prostate cancer cells transfected with MMP-26 cDNA are more invasive than the parental cell lines. MMP-26 promoted prostate cancer invasion via activation of progelatinase B/MMP-9. The endometase active site structure has been revealed to have an intermediate Sl' pocket using synthetic metalloproteinase inhibitors. Endometases may be a novel marker for prostate cancer detection and a new target for therapy. Reprints published by Sang lab are attached.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 25 Feb 2003-25 Feb 2004

Pages:52 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-02-1-0238 *(DAMD170210238)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Endometase in Androgen-Repressed Human Prostate Cancer

View Full Text: (pdf) - 3 MB -

https://www.dtic.mil/DOAC/document?document=ADA415315&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a415315.pdf

Accession Number: ADA415315

Personal Author(s): Sang, Qing-Xiang A

Corporate Author: FLORIDA STATE UNIV TALLAHASSEE

Report Date: Mar 2003

Abstract: (U) The spread of prostate cancer cells to other parts of the body is the leading cause of patient death. In 2000, we reported the discovery, cloning, and characterization of human matrix metalloproteinase-26 (MMP-26), endometase. We have been testing three specific hypotheses: 1) The expression levels of MMP-26 is correlated with the metastatic potentials and the degrees of malignancy of human prostate cells; 2)MMP-26 has unique structure and enzymatic function; 3) MMP-26 enhances prostate cancer invasion by digesting extracellular matrix proteins and inactivating serine proteinase inhibitors, and specific inhibitors of MMP-26 block prostate cancer invasion. We have showed that the levels of MMP-26 protein in human prostate carcinomas from multiple patients were significantly higher than those in prostatitis, benign prostate hyperplasia, and normal prostate glandular tissues. MMP-26 promoted prostate cancer invasion via activation of pro-gelatinase B/MMP-9. The endometase active site structure and function have been investigated using synthetic metalloproteinase inhibitors. These results suggest that endometases may be a novel marker for prostate cancer diagnosis and prognosis and a new target for prostate cancer therapy. More detailed results and summary are described in attached two J. Biol. Chem. papers published and in press from Dr. Sang's laboratory.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 25 Feb 2002-25 Feb 2003

Pages:58 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-02-1-0238 *(DAMD170210238)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Role of Angiogenesis in the Etiology and Prevention of Ovarian Cancer. Project 1: Effect of Angiogenesis Inhibitors in Preventing Ovarian Cancer Growth

View Full Text: (pdf) - 16 MB -

https://www.dtic.mil/DOAC/document?document=ADA413335&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a413335.pdf

Accession Number: ADA413335

Personal Author(s): Ramakrishnan, Sundaram

Corporate Author: MINNESOTA UNIV MINNEAPOLIS

Report Date: Oct 2002

Abstract: (U) Primary growth of ovarian cancer and its spreading in the peritoneal cavity as micrometastases are dependent on angiogenesis. Therefore, angiogenesis inhibitors can be used in the prevention and treatment of ovarian cancers. One of the objectives of Project I is the development of a genetically reengineered angiostatic protein, endostatin. During expression cloning of human endostatin, a single point mutation was identified. Mutation lead to the substitution of Proline 125 to an Alanine residue Mutant endostatin (Pl2SA) was expressed in soluble form in large quantities to evaluate its effect against ovarian cancer growth. Native human endostatin was used in parallel studies to determine relative efficacy. Pl2SA endostatin was more potent than native endostatin in inhibiting endothelial cell proliferation and migration in vitro. Mutant endostatin also bound endothelial cells better than the native protein. Furthermore, mutant endostatin inhibited ovarian cancer growth in athymic mice more effectively when compared to native endostatin.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 1 Oct 2001-30 Sep 2002

Pages:259 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-99-1-9564 *(DAMD179919564)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning of Tumor Suppressor Genes in Prostate Cancer by a Novel Tumor Reversion Method

View Full Text: (pdf) - 323 KB -

https://www.dtic.mil/DOAC/document?document=ADA400784&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a400784.pdf

Accession Number: ADA400784

Personal Author(s): Bolger, Graeme B

Corporate Author: ALABAMA UNIV IN BIRMINGHAM

Report Date: Mar 2002

Abstract: (U) We have developed a novel approach to the cloning of tumor suppressor genes in prostate cancer. We have transferred large pieces of human DNA, cloned into bacterial artificial chromosomes (BACs), into human prostate cancer cell lines. We then tested the ability of the transferred human DNA to revert (render less tumorigenic) the neoplastic phenotype of the cancer cell lines, using several criteria, including morphological changes in the cells, doubling time and growth in soft agar. We have found several BACs that revert human prostate cancer cell lines in this assay. We are now testing the ability of cDNAs encoded by genes on these BACs to revert the cell lines, using identical assays. This process should allow us to identify the putative tumor suppressor gene on the BACs. Our approach is potentially applicable to the cloning of any human prostate tumor suppressor gene, and thus is of potentially major importance.

Abstract Classification:Unclassified

Descriptive Note: Final rept. 17 Aug 1998-16 Feb 2002

Pages:8 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-98-1-8639 *(DAMD179818639)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) The Global Technology Revolution

View Full Text: (pdf) - 5 MB -

https://www.dtic.mil/DOAC/document?document=ADA391926&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a391926.pdf

Accession Number: ADA391926

Personal Author(s): Anton, Philip S ; Silberglitt, Richard ; Schneider, James

Corporate Author: RAND NATIONAL DEFENSE RESEARCH INST SANTA MONICA CA

Report Date: Jan 2001

Abstract: (U) Life in 2015 will be revolutionized by the growing effect of multidisciplinary technology across all dimensions of life: social, economic, political, and personal. Biotechnology will enable us to identify, understand, manipulate, improve, and control living organisms (including ourselves). The revolution of information availability and utility will continue to profoundly affect the world in all these dimensions. Smart materials, agile manufacturing, and nanotechnology will change the way we produce devices while expanding their capabilities. These technologies may also be joined by wild cards in 2015 if barriers to their development are resolved in time. The results could be astonishing. Effects may include significant improvements

in human quality of life and life span, high rates of industrial turnover, lifetime worker training, continued globalization, reshuffling of wealth, cultural amalgamation or invasion with potential for increased tension and conflict, shifts in power from nation states to non-governmental organizations and individuals, mixed environmental effects, improvements in quality of life with accompanying prosperity and reduced tension, and the possibility of human eugenics and cloning. The actual realization of these possibilities will depend on a number of factors, including local acceptance of technological change, levels of technology and infrastructure investments, market drivers and limitations, and technology breakthroughs and advancements. Since these factors vary across the globe, the implementation and effects of technology will also vary, especially in developing countries. Nevertheless, the overall revolution and trends will continue through much of the developed world. The fast pace of technological development and breakthroughs makes foresight difficult, but the technology revolution seems globally significant and quite likely.

Abstract Classification:Unclassified

Pages:87 Page(s)

Report Number: RAND/MR-1307-NIC *(RANDMR1307NIC)* , XX - NIC/WDC *(XXNICWDC)*

Monitor Series: NIC/WDC *(NICWDC)*

Contract/Grant/Transfer Number: DASW01-95-C-0069 *(DASW0195C0069)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning and Expression of Human Chromium-Reducing Enzymes

View Full Text: (pdf) - 2 MB -

https://www.dtic.mil/DOAC/document?document=ADA384713&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a384713.pdf

Accession Number: ADA384713

Personal Author(s): Myers, Charles R

Corporate Author: MEDICAL COLL OF WISCONSIN MILWAUKEE DEPT OF PHARMACOLOGY AND TOXICOLOGY

Report Date: 12 Nov 2000

Abstract: (U) The cloning and expression in E. coli of three of the proteins of interest (FMO3, P450 reductase, and b5 reductase) were accomplished. Human cytochrome b5 and P450 reductase became available from commercial sources. Recombinant FMO3 had little to no NADPH dependent Cr(VI) reduction activity; similarly, when tested alone, none of the other proteins (cytochrome b5, P450 reductase, b5 reductase) had prominent Cr(VI) reductase activity.

Efficient electron transfer from NADPH to cytochrome b5 was observed using proteoliposomes containing human recombinant cytochrome b5 and P450 reductase. When normalized to equivalent cytoclirome b5 concentrations, the NADPH-dependent Cr(VI) reduction rates mediated by these proteoliposomes were essentially identical to those for human microsomes. Trace amounts of iron (Fe) could dramatically stimulate Cr(VI) reduction by these proteoliposomes; this stimulation could be abolished by deferoxamine. The Fe(III) reduction rates were sufficient to account for the Fe-mediated stimulation of Cr(VI) reduction. Cr(V) was detected as a transient intermediate formed during NADPH-dependent Cr(VI) reduction mediated by these proteoliposomes. Iron also stimulated the subsequent reduction of Cr(V) by these proteoliposomes which would accelerate the formation of Cr(IV), a highly reactive species. Under aerobic conditions, Cr(VI) reduction by these proteoliposomes resulted in the generation of hydroxyl radical (.OH), a highly damaging species. Overall, the interaction of cytochrome b5 with P450 reductase can account for: (1) essentially all of the NADPH-dependent Cr(VI) reduction seen with human microsomes; (2) the iron-mediated stimulation of Cr(VI) reduction; and (3) the generation of reactive species E.G., Cr(V), .OH which are likely involved in some of the cytotoxic and genotoxic effects associated with Cr(VI) exposure.

Abstract Classification:Unclassified

Descriptive Note: Final rept. 15 Aug 1997-14 Aug 2000

Pages:30 Page(s)

Report Number: 2200732 *(2200732)* , AFRL-SR-BL - TR-00-0673 AFOSR *(AFRLSRBLTR000673)* , XC - TR-00-0673 AFOSR *(XCTR000673)*

Monitor Series: TR-00-0673 *(TR000673)* , AFOSR

Contract/Grant/Transfer Number: F49620-97-1-0423 *(F496209710423)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Novel Approaches to Preventing Urinary Tract Infection in Women

View Full Text: (pdf) - 3 MB -

https://www.dtic.mil/DOAC/document?document=ADB267547&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/b267547.pdf

Accession Number: ADB267547

Personal Author(s): Stapleton, Ann E

Corporate Author: WASHINGTON UNIV SEATTLE

Report Date: Sep 2000

Abstract: (U) Urinary tract infections (UTIs), generally caused by Escherichia coli or Staphylococcus saprophyticus, are extremely common among young women. Although UTIs can be treated, we currently lack effective means to prevent frequently UTIs, which occur in 25% of women with first UTI. A necessary prerequisite to UTI is adherence of uropathogens to the vaginal and bladder epithelium. This report describes the fourth year of progress in a project that defines uropathogenic E. coli and S. saprophyticus-binding glycosphingolipids (GSLs) in the vaginal and bladder epithelium, shown in preliminary studies to function as bacterial receptors, as a prerequisite to the rational design of new agents that will prevent colonization and infection in women. Key progress includes: (a) establishment of in vitro models of primary cultured bladder epithelial and human vaginal epithelial cells; (b) characterization of GSLs expressed by these epithelial cells and of bacterial adherence to them; (c) studies of the effects of exogenous estrogen on GSL and keratin expression and bacterial adherence; (d) cloning of a human alpha-1-4Galactosyltransferase; and (e) enzymatic synthesis of globoseries based GSL compounds.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 1 Sep 1999-31 Aug 2000

Pages:39 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-96-1-6301 *(DAMD179616301)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning Components of Human Telomerase

View Full Text: (pdf) - 1 MB -

https://www.dtic.mil/DOAC/document?document=ADA395468&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a395468.pdf

Accession Number: ADA395468

Personal Author(s): Futcher, Allen

Corporate Author: COLD SPRINGS HARBOR LAB NY

Report Date: Aug 2000

Abstract: (U) Telomerase is an enzyme needed to maintain telomeres, and is therefore needed for the indefinite growth of cancer cells. An anti-telomerase drug might therefore be a good anti-tumor agent. To help in finding such drugs, two-hybrid and three-hybrid screens have been done in an attempt to identify new components of the telomerase complex. The two-hybrid screen yielded no new components. The three-hybrid screen yielded multiple interactors, but it is still

not clear whether these are genuine components of telomerase. The most interesting of these is poly (ADP-ribose) polymerase (PARP), which is known to be involved in DNA repair, and is a homolog of a protein known to function at telomeres. In addition, telomerase activity has been reconstituted in vitro. Finally, the role of a yeast telomerase component, Est1, was defined. Est1 is an RNA binding protein that binds the telomerase RNA, and helps bring it to the telomere. RNA binding proteins are also found in the telomerase complexes from other organisms, including mammals, and so the understanding of this yeast component may improve our understanding of human telomerase.

Abstract Classification:Unclassified

Descriptive Note: Final rept. 1 Jul 1997-1 Jul 2000

Pages:23 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-97-1-7315 *(DAMD179717315)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Novel Approaches to Preventing Urinary Tract Infection in Women

View Full Text: (pdf) - 2 MB -

https://www.dtic.mil/DOAC/document?document=ADB257445&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/b257445.pdf

Accession Number: ADB257445

Personal Author(s): Stapleton, Ann E

Corporate Author: WASHINGTON UNIV SEATTLE

Report Date: Sep 1999

Abstract: (U) Urinary tract infections (UTIs), generally caused by Escherichia coli or Staphylococcus saprophyticus, are extremely common among young women. Although UTIs can be treated, we currently lack effective means to prevent frequently UTIs, which occur in 25% of women with first UTI. A necessary prerequisite to UTI is adherence of uropathogens to the vaginal and bladder epithelium. This report describes the third year of progress in a project that defines uropathogenic E. coli and S. saprophyticus-binding glycosphingolipids (GSLs) in the vaginal and bladder epithelium, shown in preliminary studies to function as bacterial receptors, as a prerequisite to the rational design of new agents that will prevent colonization and infection in women. Key progress includes: (a) establishment of in vitro models of primary cultured bladder epithelial and human vaginal epithelial cells; (b) characterization of GSLs expressed by

these epithelial cells and of bacterial adherence to them; (c) studies of the effects of exogenous estrogen on GSL expression and bacterial adherence to each of these in vitro model systems; (d) cloning of a potential human al -4Galactosyltransferase; and (e) enzymatic synthesis of globoseries based GSL compounds.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 1 Sep 1998- 31 Aug 1999

Pages:36 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-96-1-6301 *(DAMD179616301)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning Components of Human Telomerase.

View Full Text: (pdf) - 542 KB -

https://www.dtic.mil/DOAC/document?document=ADA375306&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a375306.pdf

Accession Number: ADA375306

Personal Author(s): Futcher, Allen B

Corporate Author: BIOLOGICAL LAB COLD SPRING HARBOR NY

Report Date: Jul 1999

Abstract: (U) Telomerase is an enzyme needed to maintain telomeres, and is therefore needed for the indefinite growth of cancer cells. An anti-telomerase drug might therefore be a good anti-tumor agent. To help in finding such drugs, two-hybrid and three-hybrid screens have been done in an attempt to identify new components of the telomerase complex. In addition, telomerase activity has been reconstituted in vitro. Reconstituted telomerase will eventually be useful for drug screening.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 1 Jul 98-30 Jun 99

Pages:10 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-97-1-7315 *(DAMD179717315)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning Human Chromosome 17 Genes: Candidate Genes for BRCA1.

View Full Text: (pdf) - 754 KB -

https://www.dtic.mil/DOAC/document?document=ADA361576&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a361576.pdf

Accession Number: ADA361576

Personal Author(s): Lee, Cheng-Chi

Corporate Author: BAYLOR COLL OF MEDICINE HOUSTON TX

Report Date: Oct 1998

Abstract: (U) Our research interest is focused on the identification of genes from chromosome 17. The isolation of genes transcribed from chromosome 17 will provide candidates for the proposed sporadic breast cancer genes and genes for other human disorders.The ability to isolate genes in a chromosome specific manner provides simultaneous identification of the expressed sequence and a chromosomal location. Our approach identifies expressed sequences by reciprocal probing of arrayed cDNA libraries and a chromosome specific cosmid library. To date from the cDNAs isolated from human chromosome 17 we have identified two very important gene& One gene, which encode a coactosin like protein (CLP and maps to 17p11.2 has been demonstrated by us and our collaborators to be involved in the Smith-Magenis Syndrome, a neuro-muscular disorder. A second gene which encodes a putative transcription factor has been demonstrated by my laboratory to be a key gene in the mammalian circadian rhythm pathway. Based on protein homology, a second circadian gene was recently identified by my laboratory.

Abstract Classification:Unclassified

Descriptive Note: Final rept. 15 Sep 94-14 Sep 98

Pages:17 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

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Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning Components of Human Telomerase.

View Full Text: (pdf) - 636 KB -

https://www.dtic.mil/DOAC/document?document=ADA360889&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a360889.pdf

Accession Number: ADA360889

Personal Author(s): Futcher, Allen B

Corporate Author: COLD SPRING HARBOR LAB OF QUANTITATIVE BIOLOGY NY

Report Date: Jul 1998

Abstract: (U) Telomerase, the enzyme which maintains the repetitive DNA sequences found at the ends of chromosomes, is an excellent candidate for an anti-tumor drug target. Almost all cancer cells have and need telomerase, while normal somatic cell neither have nor need telomerase. Human telomerase contains at least three components: a catalytic reverse transcriptase called hTRT; an RNA molecule called hTR that provides the template for the reverse transcriptase, and a protein of undefined function called TP 1 or TLP 1. We are attempting to find additional components of human telomerase. We have used a three-hybrid screen to find additional molecules that bind to the telomerase RNA. We have found some promising candidate binders, including (1) DEK, (2) poly (ADP-ribose) polymerase, (3) the human Rad2l homolog, and (4) c-myc. We are now assessing the in vivo relevance of these proteins to telomerase function. We have shown that in vitro, telomerase activity can be reconstituted with just two components, hTRT and hTR.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 1 Jul 97-30 Jun 98

Pages:12 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-97-1-7315 *(DAMD179717315)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning Human Chromosome 17 Genes: Candidate Genes for BRCA1.

View Full Text: (pdf) - 595 KB -

https://www.dtic.mil/DOAC/document?document=ADA341243&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a341243.pdf

Accession Number: ADA341243

Personal Author(s): Lee, Cheng-Chi

Corporate Author: BAYLOR COLL OF MEDICINE HOUSTON TX

Report Date: Oct 1997

Abstract: (U) Our research interest is focused on the identification of genes from chromosome 17. The isolation of genes transcribed from chromosome 17 will provide candidates for the proposed sporadic breast cancer genes and genes for other human disorders. The ability to isolate genes in a chromosome specific manner provides simultaneous identification of the expressed sequence and a chromosomal location. Our approach identifies expressed sequences by reciprocal probing of arrayed cDNA libraries and a chromosome specific cosmid library. To date from the cDNAs isolated from human chromosome 17 we have identified two very important gene& One gene, which encode a coactosin like protein (CLI) and maps to l7pl 1.2 has been demonstrated by us and our collaborators to be involved in the Smith-Magenis Syndrome, a neuro-muscular disorder. A second gene which encodes a putative transcription factor has been demonstrated by my laboratory to be a key gene in the mammalian circadian rhythm pathway. This gene which we have named RIGUl could initiate molecular studies into hypotheses that the responsiveness of patients to chemotherapy display circadian patterns.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 15 Sep 96-14 Sep 97,

Pages:11 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-94-J-4484 *(DAMD1794J4484)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning Human Chromosome 17 Genes: Candidate Genes for BRCAl.

View Full Text: (pdf) - 686 KB -

https://www.dtic.mil/DOAC/document?document=ADA321576&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a321576.pdf

Accession Number: ADA321576

Personal Author(s): Lee, Cheng-Chi

Corporate Author: BAYLOR COLL OF MEDICINE HOUSTON TX

Report Date: Oct 1996

Abstract: (U) From loss of heterozygosity (LOH) studies, it has been determined that three regions 17p13, 17q12-22, and 17q24-25 of human chromosome 17 are frequently deleted in breast cancer. The presence of LOH in these region suggest the location of putative tumor suppressor. Our research is focused on the isolation of chromosome 17 genes. A method for the isolation of chromosome specific cDNAs using high density arrayed cDNA and chromosome specific cosmid libraries was developed. To date we have isolated and mapped 105 unique cDNAs of chromosome 17. Of these we have mapped 72 of these cDNAs to the three regions that have been determined to be associated with LOH in breast cancer. These cDNAs are now potential candidate genes for the putative tumor suppressor associated with breast cancer on human chromosome 17. Potential function of these cDNAs will be determined by comparing sequence information to known protein motif in the genome data base. Genes encoding for proteins involved in cellular functions including signal transduction, transcription and cell cycle pathways are prime candidate for tumor suppressor. These genes will be further characterize to determine if they play any role in breast cancer etiology.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 15 Sep 95-14 Sep 96,

Pages:10 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-94-J-4484 *(DAMD1794J4484)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning of Human Monoclonal Antibodies Associated with Medullary Ductal Carcinoma.

View Full Text: (pdf) - 581 KB -

https://www.dtic.mil/DOAC/document?document=ADA319783&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a319783.pdf

Accession Number: ADA319783

Personal Author(s): Telleman, Peter

Corporate Author: NEW ENGLAND DEACONESS HOSPITAL BOSTON MA

Report Date: Sep 1996

Abstract: (U) Combinatorial phage technology is used to identify and characterize newly expressed proteins which elicit plasma cell reactions in certain breast carcinomas. It is our principal hypothesis that this reaction reflects a local immune response against tumor that is etiologic in the historical impression of a more favourable natural course of these tumors after surgery-only therapy. DNA sequencing of IgG H and L chains from random unselected clones indicates a dramatic focus in libraries derived from two patients with medullary ductal carcinoma, supporting our hypothesis of a local immune response in these tumors. Reactive phage clones are selected from phage display libraries using optimal cell-based panning conditions with medullary ductal carcinoma cells. It was demonstrated that Her2/neu and p53 are not the eliciting antigens.We will be employing immunoprecipitation and immunoblotting in order to isolate the antigen of interest.

Abstract Classification:Unclassified

Descriptive Note: Final rept. 15 Aug 95-14 Aug 96,

Pages:15 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-94-J-4297 *(DAMD1794J4297)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning Human Chromosome 17 Genes:

View Full Text: (pdf) - 804 KB -

https://www.dtic.mil/DOAC/document?document=ADA302601&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a302601.pdf

Accession Number: ADA302601

Personal Author(s): Lee, Cheng-Chi

Corporate Author: BAYLOR COLL OF MEDICINE HOUSTON TX

Report Date: Oct 1995

Abstract: (U) Our research interest is focused on the development of new strategies to identify genes from chromosome 17. The isolation of genes transcribed from chromosome 17 will provide candidates for the proposed sporadic breast and ovarian cancer genes. We have recently reported a method for the isolation of chromosome specific cDNAs using high density arrayed cDNA and chromosome specific cosmid libraries. The ability to isolate genes in a chromosome specific manner provides simultaneous identification of the expressed sequence and a chromosomal location. This new technology identifies expressed sequences by reciprocal

probing of arrayed cDNA libraries and a chromosome specific cosmid library. We have used these resources to identify 1794 clones from the Los Mamos chromosome 17 cosmid library using probes generated from a placental cDNA library. So far, we have isolated and characterized 42 cDNAs to chromosome 17. Several of these cDNAs mapped to the region 17p13, while 14 other cDNAs mapped to the region of 17q12-22. Recent studies have demonstrated that in some sporadic breast cancer there are loss of heterozygosity (LOH) in these regions of human chromosome 17.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 15 Sep 94-14 Sep 95,

Pages:15 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-94-J-4484 *(DAMD1794J4484)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning of Human Monoclonal Antibodies Associated with Medullary Ductal Carcinoma.

View Full Text: (pdf) - 731 KB -

https://www.dtic.mil/DOAC/document?document=ADA304458&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a304458.pdf

Accession Number: ADA304458

Personal Author(s): Telleman, Peter

Corporate Author: NEW ENGLAND DEACONESS HOSPITAL BOSTON MA

Report Date: 13 Sep 1995

Abstract: (U) It is intended to identify and characterize newly expressed proteins (neo-antigens) which elicit plasma cell reactions in medullary and in non-medullary ductal carcinomas with circumscription and plasma cell infiltration. To accomplish this purpose, we exploit recently developed molecular procedures in a new application to derive antibodies from the tumor-infiltrating plasma cells, and then use these antibodies to retrieve the proteins whose new expression in the tumors induced the response. Ig sequencing of two patient MC samples revealed reiteration, supporting the presence of a focussed, specific immune response against an antigen by reactive plasma cells in the MC tumor. Additionally, phage Fab clones from these combinatorial phage libraries were shown to bind to HTB24 cells, the only available MC cell line, confirming cell surface expression of the putative neo-antigens on these cells. The neo-

antigens will be identified by immunoprecipitation with reactive antibodies. Subsequently these proteins will be assesed for possible roles in the malignant prolifiration and as subjects for anti-breast cancer interventions.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 15 Aug 94-14 Aug 95,

Pages:16 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-94-J-4297 *(DAMD1794J4297)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE , 23 - AVAILABILITY: DOCUMENT PARTIALLY ILLEGIBLE

Distribution Statement:Availability: Document partially illegible.

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) The Cloning of the BRCA1 Gene.

View Full Text: (pdf) - 8 MB -

https://www.dtic.mil/DOAC/document?document=ADA302184&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a302184.pdf

Accession Number: ADA302184

Personal Author(s): Narod, Steven A

Corporate Author: MONTREAL GENERAL HOSPITAL (QUEBEC) RESEARCH INST

Report Date: Sep 1995

Abstract: (U) Dr. Narod applied techniques of linkage analysis to a panel of breast-ovarian cancer families and reduced the region of assignment of the BRCA1 gene to a 600kb interval. A physical map of this region around the 17RSDB locus was created and genes in this region were identified. In collaboration with other groups, the BRCA1 gene was cloned in late 1994. The identification of this gene has led to many important questions regarding the biology of the gene, the population genetics of BRCA1 mutations and clinical management of women who are identified to be carriers of BRCA1 mutations. Dr. Narod has studied the range of BRCA1 mutations in 60 Canadian families and 20 families from the USA. Dr. Narod has established that both genetic and non-genetic factors (reproductive history) modify the risk of cancer in carriers of BRCA1 mutations. Common mutations in particular ethnic groups have been identified. Knowledge of these ethnic associations will greatly facilitate screening efforts in the high risk population.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 1 Sep 94-31 Aug 95,

Pages:118 Page(s)

Report Number: XA - USAMRMC *(XA)*

Monitor Series: USAMRMC

Contract/Grant/Transfer Number: DAMD17-94-J-4299 *(DAMD1794J4299)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) JPRS Report: Science and Technology, Central Eurasia: Life Sciences.

View Full Text: (pdf) - 5 MB -

https://www.dtic.mil/DOAC/document?document=ADA333159&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a333159.pdf

Accession Number: ADA333159

Corporate Author: JOINT PUBLICATIONS RESEARCH SERVICE ARLINGTON VA

Report Date: 02 Feb 1993

Abstract: (U) Partial Contents: Realization of 'Soil Fertility' Program, Kazakhstan Scientists on Soil Fertility, Increasing Soil Fertility on Irrigated and Non-Irrigated Land in Kazakhstan, Effect of Anthropogenic Factors on Microorganisms of Phosphorus Cycle in Lake Balkhash, Increasing Erosion Resistance of Irrigated Soils, Identification of DNA-Binding Proteins of Extracellular Vaccinia Virions, Taurine Effects on Ultrastructure of Parallel Fiber-Purkinje Cell Synapses in Frog Cerebellum, Cloning and Expression of Human Proinsulin Gene in Bacillus Amyloliquefaciens Selected for Low Exoprotease Activity, Potato Cell Clones Resistant to Pectolytic Enzymes and Phytophthora-Resistant Regenerants, Mobilization of RSF1010-Derived Chimeric Plasmid From Escherichia Coli to Bacillus pRP4.

Abstract Classification:Unclassified

Pages:61 Page(s)

Report Number: JPRS-ULS-93-001 *(JPRSULS93001)* , XJ - XD *(XJ)*

Monitor Series: XD

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Distribution Statement:Approved for public release; distribution is unlimited.

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Molecular Cloning of Human Gene(s) Directing the Synthesis of Nervous System Cholinesterases

View Full Text: (pdf) - 3 MB -

https://www.dtic.mil/DOAC/document?document=ADA206405&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a206405.pdf

Accession Number: ADA206405

Personal Author(s): Hermona, Soreq

Corporate Author: WEIZMANN INST OF SCIENCE REHOVOT (ISRAEL)

Report Date: Sep 1987

Abstract: (U) Cholinesterases (ChEs) are highly polymorphic serine hydrolases involved in the termination of neurotransmission in cholinergic synapses and neuromuscular junctions. Both the levels and the molecular forms of ChEs were shown to be modulated during development, denervation and regeneration processes in various species. In order to examine the molecular mechanisms underlying these phenomena in humans, we have used oligodeoxynucleotide probes to isolate full-length cDNA clones coding for human ChE. These clones are currently employed in our laboratory to study the biogenesis of human ChE at various levels of gene expression. Keywords: Cholinesterase; Chromosomal mapping; cDNA hybridization; Genomic clones; Xenopus oocytes microinjection.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. no. 4, Nov 1985-Aug 1987, Final rept. Nov 1984-Aug 1987

Pages:71 Page(s)

Report Number: XA - USAMRDC *(XA)*

Monitor Series: USAMRDC

Contract/Grant/Transfer Number: DAMD17-85-C-5025 *(DAMD1785C5025)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning and Production of Human Acetylcholinesterase.

Accession Number: ADA193723

Personal Author(s): Aposhian, V V

Corporate Author: ARIZONA UNIV TUCSON DEPT OF MOLECULAR AND CELLULAR BIOLOGY

Report Date: 15 Jan 1986

Abstract: (U) The goal of this work was to clone by DNA recombinant technology the gene for acetylcholinesterase (EC 3.1.1.7) from a human source in order to be able to produce large amounts of pure enzyme under the direction of a gene from a single source. Unfortunately, our attempts were unsuccessful. Lack of success was probably due to the acetylcholinesterase mNRA being present in such small amounts and available techniques not being good enough to detect such minute amounts of messenger. Human neuroblastoma SK-N-SH cells were grown in culture and used in these studies. In retrospect, it appears that seeking cells that produce more than normal amounts of human acetylcholinesterase (HACE) and using modern protein purification procedures might be a better approach to obtain HACE.

Abstract Classification:Unclassified

Descriptive Note: Final rept. 1 May 82-30 Apr 84,

Pages:14 Page(s)

Contract/Grant/Transfer Number: DAMD17-82-C-2142 *(DAMD1782C2142)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Molecular Cloning of the Human Genes(s) Directing the Synthesis of Nervous System Cholinesterases.

Accession Number: ADA183229

Personal Author(s): Soreq,Hermona

Corporate Author: WEIZMANN INST OF SCIENCE REHOVOT (ISRAEL) DEPT OF NEUROBIOLOGY

Report Date: Dec 1985

Abstract: (U) Complementary DNA (cDMA) and genomic DNA clones coding for human cholinesterase (ChE) were selected from phage DNA libraries by synthetic oligodeoxynucleotides coding for the organophosphate binding site of ChE and were characterized, sequenced and expressed within bacterial cells to yield AChE-like proteins. The Xenopus oocytes microinjection bioassay for translation of ChEmRNA has been improved and refined for studying the post-translational processing of nascent ChE molecules. ChE polymorphism and auto-immune anti-ChE antibodies were studied. Keywords: Acetylcholinesterase; Pseudocholinesterase; Immunoblotting; Poisoning; Cholinesterase inhibiters.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. no. 3, 1 Nov 84-31 Oct 85,

Pages:56 Page(s)

Contract/Grant/Transfer Number: DAMD17-85-C-5025 *(DAMD1785C5025)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning and Production of Human Acetylcholinesterase.

Accession Number: ADA195713

Personal Author(s): Aposhian, H V

Corporate Author: ARIZONA UNIV TUCSON DEPT OF MOLECULAR AND CELLULAR BIOLOGY

Report Date: Dec 1984

Abstract: (U) The goal of this work was to clone by DNA recombinant technology the gene for acetylcholine esterase from a human source. In order to do this we prepared and purified monoclonal antibody from large amounts of medium in which HG-72 hybridoma (ATCC) has been grown. The monoclonal antibody was found to inhibit human acetylcholine esterase but not eel acetylcholine esterase. Attempts to determine and appropriate oligonucleotide sequence probe are also discussed. Keywords: Acetylcholinesterase. (AW)

Abstract Classification:Unclassified

Descriptive Note: Annual summary rept. May 83-Apr 84,

Pages:12 Page(s)

Contract/Grant/Transfer Number: DAMD17-82-C-2142 *(DAMD1782C2142)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Summary of Presentations at Plenary Sessions and Discussion Workshop at National Meeting of the Reticuloendothelian Society (21st) Held at Montreal, Canada on 14-17 October 1984

View Full Text: (pdf) - 279 KB -

https://www.dtic.mil/DOAC/document?document=ADA153641&collection=pub-tr&contentType=PDF&citationFormat=1f

File:/U2/a153641.pdf

Accession Number: ADA153641

Corporate Author: RETICULOENDOTHELIAL SOCIETY AUGUSTA GA

Report Date: Oct 1984

Abstract: (U) The meeting was initiated by a discussion workshop on Cellular and Molecular Biology of Gamma Interferon. The next presentation was about the genetic engineering of mouse and human gamma interferon, and cloning of the genes for human lymphotoxin and tumor necrosis factor. The next presentation was on the relationship between mouse interferon and macrophage activating factor. The final presentation pertained to the interacellular effects induced by mouse gamma interferon. The first plenary session of the meeting was on Cell-Cell Interaction: A Basic Host Recognition System. The second plenary session was on Recent Advances in Neutrophil Biology. The last plenary session in the meeting on Human macrophages and Disease.

Abstract Classification:Unclassified

Descriptive Note: Final rept.

Pages:7 Page(s)

Report Number: XB - NAVEXOS *(XB)*

Monitor Series: NAVEXOS

Contract/Grant/Transfer Number: N00014-84-G-0190 *(N0001484G0190)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning and Production of Human Acetylcholinesterase.

Accession Number: ADA195470

Personal Author(s): Aposhian, H V

Corporate Author: ARIZONA UNIV TUCSON DEPT OF CELLULAR AND DEVELOPMENTAL BIOLOGY

Report Date: Jul 1983

Abstract: (U) The goal of this work is to clone by recombinant technology the gene for acetylcholinesterase (EC 3.1.1.7) from a human source for the purpose of producing large amounts of pure enzyme from a single gene. To this end we have screened five different established neuroblastoma cell lines for the production of enzyme. From the highest producer we have translated total messenger RNA in a rabbit reticulocyte system. We are currently preparing monoclonal antibody directed against acetylcholinesterase to isolate specific mRNA from a

polyribosomal preparation from neuroblastoma SK-N-SH cells. Keywords: Genetics; Clones; Production; Biosynthesis.

Abstract Classification:Unclassified

Descriptive Note: Annual summary rept. May 82-Apr 83,

Pages:14 Page(s)

Contract/Grant/Transfer Number: DAMD17-82-C-2142 *(DAMD1782C2142)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Cloning of Acetylcholinesterase Gene in a Microbial Vector.

Accession Number: ADA179819

Personal Author(s): Harris,William J

Corporate Author: INVERESK RESEARCH INTERNATIONAL LTD MUSSELBURGH (SCOTLAND)

Report Date: 15 Feb 1983

Abstract: (U) Techniques to distinguish between the activities of human acetylcholinesterase and pseudocholinesterase have been developed. Human neuroblastoma cell lines have been shown to synthesize human acetylcholinesterase and the level of enzyme within these cells can be induced by treatment of cells with sodium butyrate or dibutyryl cAMP. These cell lines should be suitable as a source of mRNA for the cloning of the human gene into E. coli. Keywords: Genetics; Cholinesterases.

Abstract Classification:Unclassified

Descriptive Note: Annual rept. 1 May 82-31 Jan 83,

Pages:45 Page(s)

Report Number: 4 *(4)*

Contract/Grant/Transfer Number: DAMD17-82-C-2144 *(DAMD1782C2144)*

FOIA U2 Display

Distribution/Classification

Distribution Code:01 - APPROVED FOR PUBLIC RELEASE

Report Classification: Unclassified

Collection: Technical Reports

Title: (U) Immunotechnology: Preparation of Immunotherapeutic Reagents and Development of Immunopharmacologic Vaccines.

Accession Number: ADA105440

Personal Author(s): Lake,Philip

Corporate Author: GEORGETOWN UNIV WASHINGTON DC LOMBARDI CANCER CENTER

Report Date: Oct 1981

Abstract: (U) The objective of this contract is to explore the potential application of several recent and expanding discoveries in immunology to the problems of diagnosis and therapy of human disease. These recent discoveries include the production of monoclonal antibodies, the cloning of human T lymphocytes, and the manipulation of immunity using anti-idiotypic antibody. We have developed an experimental system to study Herpes Virus (HSV) immunity in man. Individuals with primary and with recurrent disease have been recruited to our donor panel and, using their cryopreserved lymphocytes, immune responses have been generated in tissue culture to this pathogenic virus and to its components. From these responses T cell lines have been produced and propagated in vitro. These lines exhibit the properties of a pool of T cell clones having immunity to HSV. In addition numerous clones of T lymphocytes (over 100) derived from single precursor cells have been produced and expanded to large numbers for study using these new tissue culture methods. Large scale production of virus and of selected antigenic components has been completed and tested. These materials are being used as antigens in various immunizations, in assays of t-cell immunity and in serological tests. In the mouse model we are analyzing the ability of immune T cells to protect normal mice from the lethal HSV infection. We have succeeded to produce T cell lines and clones of virus-immune T lymphocytes and are now testing their specificity, phenotype and function.

Abstract Classification:Unclassified

Descriptive Note: Annual rept.,

Pages:24 Page(s)

Report Number: TR-1 *(TR1)*

Contract/Grant/Transfer Number: N00014-80-K-0909 *(N0001480K0909)*

Highest Classification: Unclassified