

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

"PRODUCTION OF

ERYTHROPOIETIN"

Group No. 127 RECEIVED

DEC 1 8 1987 GROU? 120

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Application of FU-KUEN LIN

Rule 60 Continuation

Based on S.N. 675,298 (Filed November 30, 1984)

## PRELIMINARY AMENDMENT

Hon. Commissioner of Patents and Trademarks Washington, D.C. 20231

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Sir:

GROUP IZU

Please amend the above-identified continuation application as follows:

# IN THE SPECIFICATION

Page 1, line 2, after "This is" please insert -- a continuation of my co-pending U/S. Patent Application Serial No. 675,298, filed November 30, 1984, which is in turn--.

At page 25, following line 5 of the original text, please insert the following:  $-\frac{1}{7}$ Reference is made to FIGURES 1 through 21, wherein: FIGURE 1 is a graphic representation of a radioimmunoassay analysis of products of the invention; FIGURES 2 through 4 illustrate Vector constructions according to the invention; and FIGURES 5 through 21 are

DNA and polypeptide sequences according to the invention .--

Page  $^{1}$ 30, line 21, please delete "Asn" and insert -- Asn-- in place thereof.

> Page 131, line 5, please delete "and RIA Analysis". At page  $^{\prime}\!\!$ 37, line 6, please delete "Table V" and

insert -- FIGURE 5. comprising portions 5A, 5B and 5C .--. 080 12/15/80 675298 1 102

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At page 94, line 33, please delete "mammlain" and insert in place thereof --mammalian--.

#### IN THE DRAWINGS

Please add the enclosed formal drawing Figures 5 through 21.

### IN THE CLAIMS

Please cancel claim'1.
Please insert new claims 61-64.

--61. A process for the production of a polypeptide having part or all of the primary structural conformation and one or more of the biological properties of natrually-occurring erythropoietin, said process comprising:

growing, under suitable conditions, procaryotic or eucaryotic host cells transformed or transfected with a DNA sequence encoding erythropoietin, said DNA sequence selected from the group consisting of,

- (a) the DNA sequences set out in Figures 5 and 6 or their complementary strands, and
- (b) DNA sequences which hybridize under stringent conditions to the DNA sequences defined in (a); and isolating desired polypeptide products of the expression of said DNA sequence.
- 62. A process for the production of a polypeptide having part or all of the primary structural conformation and one or more of the biological properties of naturally-ocurring erythropoietin, said process comprising:

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growing, under suitable nutrient/conditions, procaryotic or eucaryotic host cells transformed or

transfected with a DNA sequence consisting essentially of a

isolating desired polypeptide products of the expression of said DNA sequence.

DNA sequence encoding human erythropoietin, and

63. A process for the production of a polypeptide having part or all of the primary structural conformation and one or more of the biological properties of naturally-ocurring erythropoietin, said process comprising:

procaryotic or eucaryotic host cells transformed or transfected with a DNA sequence consisting essentially of a DNA sequence encoding monkey erythropoietin, and

isolating desired polypeptide products of the expression of said DNA sequence.

64. A process for the production of a polypeptide having part or all of the primary structural conformation and one or more of the biological properties of naturally-ocurring erythropoietin, said process comprising:

growing, under suitable nutrient conditions, procaryotic or eucaryotic host cells transformed or transfected with a DNA sequence consisting essentially of a DNA sequence encoding a polypeptide having a primary structural conformation sufficiently duplicative of that of erythropoietin to allow possession of the biological property of causing bone marrow cells to increase production of reticulocytes and red blood cells, and to increase hemoglobin synthesis or iron uptake, and

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isolating desired polypeptide products of the expression of said DNA sequence.--

#### REMARKS

Upon entry of the above-requested preliminary amendments, the specification and drawing will conform to that in allowed parent U.S. Patent Application Serial No. 675,298, filed November 30, 1984 and projected to issue October 27, 1987 as U.S. Letters Patent No. 4,730,008. The new claims 61-64 generally correspond to erythropoietin production method claims originally presented. The Examiner's attention is respectfully drawn to claim 9 of U.S. Patent No. 4,677,063, recently issued from PTO Group 127.

Early examination on the merits and notice of allowability of the claims is solicited.

Respectfully submitted,

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