EXHIBIT 3
Part 5 of 5

PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR OR AWARD CANDIDATE (Last, first, middle) | SOCIAL SECURITY NUMBER

Goldwasser, Eugene | 494-14-6535

1. Miyake T, Kung CKH, Goldwasser E. J. Biol.Chem.252:5558(1977).
2. Sherwood JB, Goldwasser E. Blood 54:885(1979).
3. Lee-Huang S. Proc.Nat.Acad.Sci.81:2708(1984).
4. Lin FK, Lin CH, Suggs S, Lai PH, Smalling R, Browne J, Egrie J, Wang FF, Goldwasser E. Fed.Proc.43:1724 (1984).
5. Tambourin P, Casadevall N, Choppin J, Lacombe C, Heard JM, Fichelson S, Wendling F, Varet B. Proc.Nat.Acad.Sci.80:6269(1983).
6. Krantz SB, Goldwasser E. Proc Nat.Acad.Sci.in press (1984).
7. Chiba S, Kung CKH, Goldwasser E. Biochem.Biophys.Res.Commun.47:1372(1972).
8. Spivak JL, Small D, Hollenberg MD. Blood 452:1178(1978).
9. Van Lenten L, Ashwell G. J.Biol.Chem.246:1889(1970).
10. Dordal MS, Wang FF, Goldwasser E submitted (1984).
11. Wang FF, Kung CKH, Goldwasser E submitted (1984).
12. Weiss TL, Kavinsky C, Goldwasser E. Proc.Nat.Acad.Sci.79:5465(1982).
13. Weiss TL, Kung CKH, Goldwasser E. in Normal and Neoplastic Hematopoiesis eds. Golde D, Marks PA, p. 455 (1983).
14. Goldwasser E in Control of Cell Division and Development eds Cunningham D, Goldwasser E. Watson J and Fox CFF, p. 487(1981).
15. Nijhof W, Wierenga PK. J. Cell.Biol. 96:386(1983).
16. Koury MJ, Sawyer St, Bondurant MC. J. Cell. Physiol. in press (1984).
17. Tong BD, Goldwasser E. J. Biol. Chem. 256:19222(1981).
18. Goldwasser E, Sherwood JB. Brit. J. Haematol.98:359(1981).
19. Koeffler HP, Goldwasser E. Ann. Int. Med. 94:44(1981).
20. Sherwood JB, Goldwasser E. unpublished.
21. Shaloub RM, Rajan U, Kim VV, Goldwasser E, Kark JA, Antoniou LD. Ann. Int. Med. 97:680(1982).
22. Distelhorst CS, Wagner DS, Goldwasser E, Adamson JW. Blood 58:1155(1981).
23. Hopfer SM, Sunderman FW, Reid MC, Goldwasser E. Res. Commun. Path. Pharm. 43:299 (1984).
24. Emmanouel DS, Goldwasser E, Katz AI. Amer. J. Physiol. 274:168(1984).
25. Sherwood JB, Goldwasser E. Endocrinol 103:866(1978).
26. Wang FF, Goldwasser E. J. Cell. Biochem. 21:263(1983).
27. Burnette WN. Anal. Biochem. 112:195(1981).
28. Doolittle RF, Hunkapiller MW, Hood LE, Devare SG, Robbins KC, Aaronson SA, Antoniades HN. Science 221:275(1983).
29. Hopp TP, Woods KR. Proc. Nat. Acad. Sci. 78:3824(1981).
30. Schmid K. J. Am. Chem. Soc. 75:60(1953(.
31. Schmid K, Nimberg RB, Kimura A, Yamaguchi H, Binette JB. Biochim. Biophys. Acta. 492:291(1977).
32. Fournet B, Montreuil J, Strecker G, Dorland L, Haverkamp J, Vliegenthart J, Binette JB, Schmid K. Biochem. 17:5206(1978).
33. Kobata A. Anal. Biochem. 100:1(1979).
34. Straus D, Goldwasser E. Biochim. Biophys. Acta. 47:186(1961).
35. Oakley BR, Kirsch D, Morris NR. Anal. Biochem. 105:361(1980).
36. Nijhof W, Sahr K, Beru N, Goldwasser E. unpublished.
37. Zanjani ED, Lutton JB, Hoffman R, Wasserman LR. J. Clin. Invest. 59:841(1977).
38. Carpenter G, King L, Cohen S. J. Biol. Chem. 254:4884(1979).
39. Southern EM. J. Mol. Biol. 98:503(1975).
40. McMaster GK, Carmichael GG. Proc. Nat. Acad. Sci. 74:4835(1977).
41. Downward J, Yarden Y, Mayes E, Scrace G, Tolty N, Stockwell P, Ullrich A. Schlessinger J, Waterfield M. Nature 307:521(1984).
42. Messing J, Crea R, Seeburg PH. Nucleic Acids Res. 9:309(1981).
43. Sanger F, Nicklen S, Coulson AR. Proc. Nat. Acad. Sci. 74:5463(1977).
44. Hettkamp H, Bause E, Legler G. Bio. Sci. Rep. 2:899(1982).
45. Elbein AD, Solf R, Darling PR, Vosbeck K. Proc. Nat. Acad. Sci. 78:7393(1981).

DO NOT TYPE IN THIS SPACE—BINDING MARGIN

8-33769

A 196410
CONFIDENTIAL

PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR OR AWARD CANDIDATE (Last, first, middle) | SOCIAL SECURITY NUMBER

Goldwasser, Eugene | 494-14-6535

46. Schwartz RT, Datema R. Adva. Carb. Chem. Biochem. 40:287(1982).
47. Singer JW, Adamson JW. Blood 48:855(1976).
48. Goldwasser E, Jacobson LO, Freid W, Plzakl F. Blood 13:55(1958).
49. Brown JE, Adamson JW. Brit. J. Haematol. 35:193(1977).
50. Feher I, Gidali J. Nature 247:550(1974).
51. Weintraub H, Groudine M. Science 193:848(1976).
52. Waalwijk C, Flavell RA. Nucleic Acids Res. 5:3231(1978).
53. Chirqwin JM, Przybla AE, MacDonald RJ, Rutter WJ. Biochem. 18:5294(1979).
54. Studencki AB, Wallace RB. DNA 3:7(1984).
55. Schooley JC, Mahlmann LJ. Blood 40:662(1972).

DO NOT TYPE IN THIS SPACE—BINDING MARGIN

8 63770

A 196411
CONFIDENTIAL

CONFIDENTIAL
SUBJECT TO COURT PROTECTIVE ORDER

PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR Goldwasser, Eugene

CHECKLIST

This is the required last page of the application.
(Check the appropriate boxes and provide the information requested.)

TYPE OF APPLICATION

☐ NEW application *(This application is being submitted to the PHS for the first time.)*

☒ COMPETING CONTINUATION of grant number: HL 21676
(This application is to extend a funded grant beyond its current project period.)

☐ SUPPLEMENT to grant number: _____
(This application is for additional funds to supplement a currently funded grant.)

☐ REVISION of application number: _____
(This application replaces a prior unfunded version of a new, competing continuation or supplemental application.)

☐ Change of Principal Investigator/Program Director.
Name of former Principal Investigator/Program Director: _____

ASSURANCES *(See GENERAL INFORMATION section of instructions.)*

a. Civil Rights	b. Handicapped Individuals	c. Sex Discrimination	d. Vertebrate Animals *(If applicable)*	e. Human Subjects *(If applicable)*
☒ Filed ☐ Not filed	☒ Filed ☐ Not filed	☒ Filed ☐ Not filed	☒ Filed ☐ Not filed	☒ Filed ☐ Not filed

INDIRECT COSTS

Indicate the applicant organization's most recent indirect cost rate established with the appropriate DHHS Regional Office. If the applicant organization is in the process of initially developing or renegotiating a rate, or has established a rate with another Federal agency, it should, immediately upon notification that an award will be made, develop a tentative indirect cost rate proposal based on its most recently completed fiscal year in accordance with the principles set forth in the pertinent *DHHS Guide for Establishing Indirect Cost Rates*, and submit it to the appropriate DHHS Regional Office. Indirect costs will not be paid on foreign grants, construction grants, and grants to individuals, and usually not on grants in support of conferences.

☒ DHHS Agreement Dated: 06/30/83

_____ % Salary and Wages *or* 69 modified % Total Direct Costs.

Is this an off-site or other special rate, or is more than one rate involved? ☒ NO ☐ YES
(If "YES," explain and provide the basis for the indirect cost calculation.)

☐ DHHS Agreement being negotiated with _____ Regional Office.

☐ No DHHS Agreement, but rate established with _____ Date _____

☐ No Indirect Costs Requested.

A 196412
CONFIDENTIAL

CONFIDENTIAL
SUBJECT TO COURT PROTECTIVE ORDER

BSD
PROTECTION OF HUMAN SUBJECTS

Principal Investigator: Eugene Goldwasser

Department: Biochemistry & Molecular Biology

Title of Application: Erythropoietin: Purification, Properties, Biogenesis.

Sponsoring Agency: NIH (External, Departmental, Other, Etc.)

(This form MUST be completed and submitted with all grant and contract applications, before processing in the Dean's Office. Additionally, one copy of this form must be submitted to the CIC when submitting any protocol involving Human Subjects for review.)

Check the following statements that pertain to your application:

1. ____ Human subjects are not included in this application.

2. _x_ Human Subjects Involved:

None of the following	(XX)
Minors	( )
Fetuses	( )
Abortuses	( )
Pregnant Women	( )
Prisoners	( )
Mentally Retarded	( )
Mentally Disabled	( )

3. XX Human subjects are involved in this application. The protocol has been reviewed and approved by our Clinical Investigation Committee.

Date reviewed: 7/2/84 Protocol # 2399

4. ____ This research protocol was reviewed and approved by our Clinical Investigation Committee at the time I applied to another agency for funding:

Specify other agency: _____
Title of Application: _____
Date reviewed: _____ Protocol # _____

5. ____ This application includes human subjects, but has not received approval by the Clinical Investigation Committee, and therefore, must be submitted. (This will be handled by the Dean's Office.)

6. XX Do you intend to obtain informed consent in writing? Yes XX No ____

7. ____ If the informed consent is obtained in writing, will you devise a special form? Yes ____ No XX. If the answer is yes, please enclose a copy of the intended statement.

8. ____ If research subjects are to be paid, please give us the details (budget page does not reach Clinical Investigation Committee). Please indicate whether these subjects are patient volunteers or non-patient volunteers.

A 196413
CONFIDENTIAL

Signature of Principal Investigator

Date 2/4/

Revised 3/77

BSD
RECOMBINANT DNA RESEARCH

Principal Investigator: Eugene Goldwasser

Department: Biochemistry & Molecular Biology

Title of Application: Erythropoietin: Purification, Properties, Biogenesis

Sponsoring Agency: NIH, External, NHLBI (External, Departmental, Other, Etc.

(This form MUST be completed and submitted with all grant and contract applications, bef processing in the Dean's Office. Additionally, one copy of this form must be submitted to the Institutional Biosafety Committee (IBC) if any recombinant DNA research is propos in your application.)

Check the following statements that pertain to your application.

1. _____ Experiments with recombinant DNA molecules[1] are not included in this application.

2. X Experiments with recombinant DNA molecules are included. According to the NIH Guidelines of January 1980, these experiments fall into one or more of the following categories:

(a) X Exempt from the Guidelines[2]. If so, provide the following information:

Nature of DNA sequences to be cloned Erythropoietin gene, erythropoietin receptor gene

Source of DNA (organism) mouse

Vector PBR32

Host E. Coli.

(b) _____ Governed by the Guidelines although an MUA need not be submitted[3]. If this is the case, provide the following information:

Nature of DNA sequence to be cloned _____

Source of DNA (organism) _____

Vector _____

Host _____

(Note that this signed form containing the requested information serves as the required registration document.)

(c) _____ Governed by the Guidelines and requiring submission of an MUA[4]. If this is the case, an MUA must be prepared according to the format required by the IBC and the NIH Guidelines of January 1980 and submitted to the IBC Chairman for review and approval by the Committee.

NOTE THAT YOU MAY HAVE PROPOSED EXPERIMENTS IN ALL 3 OF THESE CATEGORIES.

31 Aug 84
Date

Eugene Goldwasser
Signature of Principal Investigator

A 196414
CONFIDENTIAL

CONFIDENTIAL
SUBJECT TO COURT PROTECTIVE ORDER

THE UNIVERSITY OF CHICAGO

STATEMENT TO ACCOMPANY APPLICATION FOR
CONTRACT, GRANT OR AWARD

TO NIH
(Sponsoring Agency or Organization)

PROPOSAL TITLE:

Erythropoietin: Purification, Properties, Biogenesis

PRINCIPAL INVESTIGATOR(S): (Please type)

(1) Goldwasser, Eugene

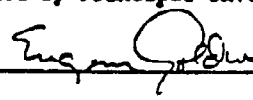
(2)

(3)

DATE: 8 / 30 / 84

The Principal Investigator(s) understand that any invention made or discovered by the Principal Investigator(s) or other staff in the course of activities encompassed by this application is subject to the terms of the University contract, grant or award document and rights shall be assigned and processed in accordance with the University Statute on patents now in effect. The Principal Investigator(s) agrees to ensure that all appropriate individuals working or consulting on this project shall be aware of this patent disclosure and assignment requirement.

Signed by Principal Investigator(s):

(1) 

(2)

(3)

P-80-0377-4

A 196415
CONFIDENTIAL