

# **EXHIBIT C**

## **(part 3 of 3)**

U.S. PATENT NO. 5,955,422 CLAIM 1

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
	<p>hematocrit level in mammals.                      Therapeutically effective is to be interpreted as being therapeutically effective with respect to the class of patients listed in the specification, column 33 lines 31 through 36: patients generally requiring blood transfusions and including trauma victims, surgical patients, renal disease patients including dialysis patients, and patients with a variety of blood composition affecting disorders, such as hemophilia, sickle cell disease, physiologic anemias, and the like.”</p> <p>“human erythropoietin” means “a protein in which the polypeptide has the amino acid sequence of EPO isolated from human urine”</p>	
<p>and a pharmaceutically acceptable diluent, adjuvant or carrier,</p>	<p>“and a diluent, adjuvant, or carrier that is suitable for administration to humans”</p>	<p>Roche's MIRCERA pharmaceutical composition contains a pharmaceutically acceptable diluent, adjuvant or carrier.                      See '933 Claim 9 above.</p>
<p>wherein said erythropoietin is purified from mammalian cells grown in culture.</p>	<p>“wherein the human erythropoietin originates from and is obtained in substantially homogeneous form from mammalian cells or mammalian cell culture medium.”</p>	<p>The erythropoietin in Roche's RO0503821 is purified from mammalian cells grown in culture.                      “During the transfer the harvest is cooled to <math>\leq 15^{\circ} \text{C}</math> by a heat exchanger. Afterwards the cells are removed by disk stack centrifugation and discarded. The supernatant containing EPO is in-line filtered and collected in a second pre-cooled vessel. . . . After 2 hours of incubation the cell free supernatant is filtered again to remove precipitates.</p>

**CONTAINS ROCHE RESTRICTED ACCESS CONFIDENTIAL BLA/IND MATERIAL**

**U.S. PATENT NO. 5,955,422 CLAIM 1**

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
		<p>The supernatant is kept <math>\leq 15^{\circ}</math> C and loaded onto a Blue Sepharose column within 36 hours. Each harvest is processed separately during purification." ITC-R-BLA-00004673-74.</p> <p>"The Epoetin beta purification process consists of five chromatographic steps. This process starts with a capture step using Blue Sepharose (BS) chromatography. Further purification is performed using a hydrophobic interaction chromatography on Butyl Toyopearl (BU), an adsorption chromatography on Hydroxyapatite Ultrogel (HA), a reversed phase (RP-) preparative HPLC on Vydac C<sub>4</sub> and finally an anion exchange chromatography on DEAE Sepharose (DEAE)" ITC-R-BLA-00004682.</p> <p>"Each harvest undergoes purification which leads to 10 batches of purified EPO starting material." ITC-R-BLA-00004667</p>

**U.S. PATENT NO. 5,621,080 CLAIM 3**

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
<p>A non-naturally occurring erythropoietin glycoprotein having the in vivo biological activity of causing bone</p>	<p>"an EPO protein not occurring in nature with attached carbohydrate groups to the polypeptide chain that causes bone marrow cells to increase production of reticulocytes and red blood cells in the body"</p>	<p>Roche's MIRCERA product contains a non-naturally occurring erythropoietin glycoprotein.</p> <p>See '933 claim 3</p> <p>Roche's MIRCERA product contains an erythropoietin glycoprotein having the in vivo biological activity of causing bone marrow cells to increase production of reticulocytes and</p>

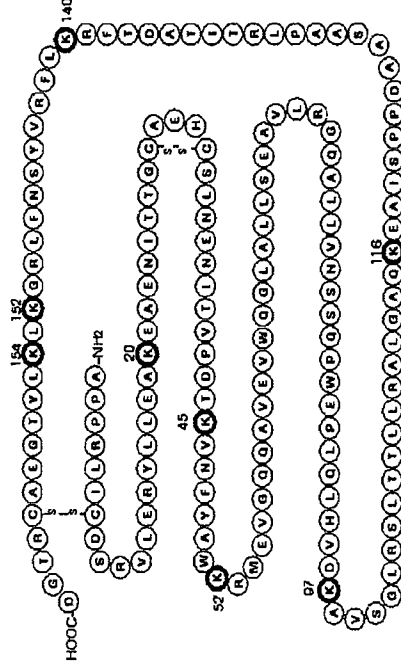
CONTAINS ROCHE RESTRICTED ACCESS CONFIDENTIAL BLA/IND MATERIAL

U.S. PATENT NO. 5,621,080 CLAIM 3

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
<p>marrow cells to increase production of reticulocytes and red blood cells</p>		<p>red blood cells. <i>See '868 claim 1.</i></p>
<p>wherein said erythropoietin glycoprotein comprises the mature erythropoietin amino acid sequence of Figure 6 of the '080 Patent because the difference is insubstantial.</p>	<p>"wherein said erythropoietin glycoprotein comprises the 166 amino acid residues (+1 through +166) specified in Fig. 6."</p>	<p>The erythropoietin glycoprotein in RO0503821 comprises the equivalent of the mature erythropoietin amino acid sequence of Figure 6 of the '080 Patent because the difference is insubstantial.</p> <p>"Epoetin beta (EPO) cDNA codes for a 166 amino acid polypeptide. All EPO products analyzed so far – either from human urine or recombinant production – only contain 165 amino acids, missing the last arginine residue. . . In this report the molecular mass of the C-terminal peptide was determined by plasma desorption mass spectrometry (PDMS) which unambiguously showed that only the peptide ending with aspartate 165 is present in all batches. Details of this kind of analysis are presented in Report 3.2.S.3.1 "Analysis of the Complete Amino Acid Sequence." ITC-R-BLA-00005616</p> <p>"Both EPO starting material and RO0503821 have the identical amino acid sequence and composition of the carbohydrate moiety. RO0503821 differs from erythropoietin through integration of an amide bond between wither the N-terminal amino group of the ε-amino group of lysine, predominantly Lys 52 and Lys 45 and methoxy polyethylene glycol-succinimidyl butanoic acid. This results in a molecular weight of around 60 kDa." ITC-R-BLA-00004027</p> <p>"Ro 50-3821 and epoetin beta share an identical amino acid sequence and composition. The only difference in the composition of native and modified protein is due to the formation of an amide</p>

CONTAINS ROCHE RESTRICTED ACCESS CONFIDENTIAL BLA/IND MATERIAL

U.S. PATENT NO. 5,621,080 CLAIM 3

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
		<p data-bbox="337 210 402 1066">bond between the amino group of epoetin beta and the methoxy-PEG molecule at the point of attachment.” ITC-R-IND-000000979.</p> <p data-bbox="418 693 446 1050"><b>2.2 EPO Starting Material</b></p> <p data-bbox="451 241 581 1050">The mature form of EPO consists of 165 amino acids. There are two disulfide bridges between Cys 7 – Cys 161 and Cys 29 – Cys 33. The protein is N-glycosylated at positions Asn 24, Asn 38, and Asn 83, and O-glycosylated at position Ser 126. The molecular weight of the protein portion is 18,236 Da, fully glycosylated EPO amounts to approximately 30,000 Da.</p> <p data-bbox="605 331 633 1050"><b>Figure 1 Amino Acid Sequence and Primary Structure of EPO</b></p>  <p data-bbox="1177 241 1258 1050">The amino acid sequence and primary structure of the protein is given in Figure 1. The potential pegylation sites are highlighted. The major pegylation sites are the N-terminus, Lys 45 and Lys 52.</p> <p data-bbox="1291 766 1318 1066">ITC-R-BLA-00004029</p> <p data-bbox="1339 241 1396 1066">“The complete amino acid sequence was determined using batch G001.09 in order to demonstrate that the primary structure of</p>

CONTAINS ROCHE RESTRICTED ACCESS CONFIDENTIAL BLA/ND MATERIAL

U.S. PATENT NO. 5,621,080 CLAIM 3

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
		<p>Epoetin beta (EPO) obtained in the serum-free process is correct. The complete sequence was found to correspond to the cDNA derived sequence." ITC-R-00005618.</p> <p>"The amino acid analysis of Epoetin beta (EPO) was performed in order to demonstrate that it corresponds to the amino acid composition derived from the cDNA sequence. The amino acid compositions of all batches analyzed was shown to be in accordance with the cDNA sequence." ITC-R-BLA-00005582.</p> <p><b>The erythropoietin glycoprotein in RO0503821 performs substantially the same function in substantially the same way to achieve substantially the same result as an erythropoietin glycoprotein comprising 166 amino acids specified in Figure 6.</b></p> <p>"Epoetin beta (EPO) cDNA codes for a 166 amino acid polypeptide. All EPO products analyzed so far -- either from human urine or recombinant production -- only contain 165 amino acids, missing the last arginine residue. . . In this report the molecular mass of the C-terminal peptide was determined by plasma desorption mass spectrometry (PDMS) which unambiguously showed that only the peptide ending with aspartate 165 is present in all batches. Details of this kind of analysis are presented in Report 3.2.S.3.1 "Analysis of the Complete Amino Acid Sequence." ITC-R-BLA-00005616</p> <p>"RO0503821 is a chemically synthesized continuous erythropoietin receptor activator." ITC-R-BLA-00000288</p> <p>"In vitro cell proliferation and human tissue binding studies confirm that RO0503821 has a similar pattern of specificity to that of epoetin beta. RO0503821 stimulated proliferation of an EPO responsive cell line, but not other human (hematopoietic and non-hematopoietic) tumor cell lines. RO0503821 binds exclusively to cell surface EPO-R on the erythroid progenitor cells in the bone marrow." ITC-R-BLA-00000315.</p>

**CONTAINS ROCHE RESTRICTED ACCESS CONFIDENTIAL BLA/IND MATERIAL**

**U.S. PATENT NO. 5,621,080 CLAIM 3**

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
		<p>“Pharmacodynamic results in healthy volunteers showed a potent, does-dependent and long lasting erythropoietic response after both IV and SC administration of RO0503821.” ITC-R-BLA-00000315.</p> <p>“RO0503821 stimulates erythropoiesis thereby increasing the number of RBCs.” ITC-R-BLA-00000316.</p> <p>“RO0503821 was efficacious in correcting anemia associated with CKD in patients who were on dialysis or not on dialysis and who were not currently treated with an ESA, regardless of route of administration (IV or SC). RO0503821 was comparable to both epoetin and darbepoetin alpha reference groups in all study parameters tested with the exception of time to target Hb response in the correction studies, which was longer with RO0503821.” ITC-R-BLA-00000326-27.</p> <p>See also Application Summary for MIRCERA, ITC-R-BLA-00000194-691; Information for Patients and Caregivers, ITC-R-BLA-00000066-77.</p>

**U.S. PATENT NO. 5,621,080 CLAIM 4**

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
A pharmaceutical composition	“A composition suitable for administration to humans”	Roche's MIRCERA product is formulated as a pharmaceutical composition.
comprising	“containing at least”	See '933 claim 9 above ( <i>pharmaceutical composition</i> ).



U.S. PATENT NO. 5,621,080 CLAIM 4

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
<p>a therapeutically effective amount [of]</p>	<p>“therapeutically effective amount” means either:                      (a) “therapeutically effective amount is one that elicits any one or all of the effects often associated with in vivo biological activity of natural EPO, such as those listed in the specification, column 33, lines 16 through 22: stimulation of reticulocyte response, development of ferrokinetic effects (such as plasma iron turnover effects and marrow transit time effects), erythrocyte mass changes, stimulation of hemoglobin C synthesis and, as indicated in Example 10, increasing hematocrit levels in mammals.”                      or                      (b) “a quantity that produces a result that in and of itself helps to heal or cure. A therapeutically effective amount is one that shares the in vitro biological activity of natural EPO, elicits in vivo biological effects such as those listed in the specification, column 33, lines 24-28: stimulation of reticulocyte response, development of ferrokinetic effects (such as plasma iron turnover effects and marrow transit time effects), erythrocyte mass changes, stimulation of hemoglobin C synthesis, and,</p>	<p>Roche's MIRCERA product contains a therapeutically effective amount of an EPO glycoprotein product.                      See '933 claim 9 above.</p>

<sup>4</sup> Construction (a) reflects the claim construction adopted by the Federal Circuit in *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 457 F.3d 1293, 1303 (Fed. Cir. 2006), with respect to the '422 patent. Amgen, however, has not yet exhausted its right to appeal that construction. Amgen, therefore, reserves the right to propose claim construction (b) at trial.



CONTAINS ROCHE RESTRICTED ACCESS CONFIDENTIAL BLA/IND MATERIAL

U.S. PATENT NO. 5,621,080 CLAIM 4

Claim Limitations	Proposed Claim Construction	Corresponding Structure or Function in Roche's Product
	<p>as indicated in Example 10, increases the hematocrit level in mammals. Therapeutically effective is to be interpreted as being therapeutically effective with respect to the class of patients listed in the specification, column 33 lines 31 through 36: patients generally requiring blood transfusions and including trauma victims, surgical patients, renal disease patients including dialysis patients, and patients with a variety of blood composition affecting disorders, such as hemophilia, sickle cell disease, physiologic anemias, and the like."</p>	
<p>an erythropoietin glycoprotein product according to claim 1, 2, or 3.</p>	<p>"an EPO glycoprotein product according to claim 1, 2, or 3"</p>	<p>Roche's MIRCERA product contains an erythropoietin glycoprotein product according to claim 3. See '868 claim 1 above. See '080 claim 3 above.</p>

U.S. PATENT NO. 5,621,080 CLAIM 6

Claim Limitations	Proposed Claim Construction	Corresponding Step in Method of Treatment
<p>A method for treating a kidney dialysis patient</p>		<p>Roche's agents have performed this method or Roche has induced or will induce physicians to practice the claimed method for treating a kidney dialysis patients. See '933 claim 11 above.</p>
<p>which comprises</p>		

CONTAINS ROCHE RESTRICTED ACCESS CONFIDENTIAL BLA/IND MATERIAL

U.S. PATENT NO. 5,621,080 CLAIM 6

Claim Limitations	Proposed Claim Construction	Corresponding Step in Method of Treatment
<p>administering a pharmaceutical composition of claim 4 in an amount effective to increase the hematocrit level of said patient.</p>	<p>“administering a pharmaceutical composition of claim 4 in an amount effective to increase the hematocrit level of said patient”</p>	<p>MIRCERA is administered and will continue to be administered in an amount effective to increase the hematocrit level of patients.                      See '080 claim 4 above (<i>independent claim</i>)                      See '933 claim 11 above (<i>effective to increase hematocrit</i>).                       See also Application Summary for MIRCERA, ITC-R-BLA-00000194-691; Information for Patients and Caregivers, ITC-R-BLA-00000066-77.</p>

**CERTIFICATE OF SERVICE VIA  
ELECTRONIC MAIL AND VIA FEDERAL EXPRESS**


I, Cheré Robinson, hereby declare:

I am a citizen of the United States and a resident of the State of California. I am over the age of eighteen years, and not a party to the within action. My business address is McDermott Will & Emery LLP, 3150 Porter Drive, Palo Alto, California 94304-1212.

On January 9, 2007, I served a copy of **PLAINTIFFS' RESPONSE TO FIRST SET OF INTERROGATORIES (NOS. 1-12)** by electronic transmission by attaching the referenced documents to an electronic mail and transmitting the same to the e-mail addresses indicated below, and then by placing a true copy thereof, on the above-referenced date, enclosed in a sealed envelope with delivery fees prepaid, and delivering said package(s) to a Federal Express Office for hand-delivery on the next business day, addressed as follows:

<p>Leora Ben-Ami, Esd.          Patricia A. Carson, Esq.          Thomas F. Fleming, Esq.          Howard Suh, Esq.          Peter Fratangelo, Esq.          KAYE SCHOLER LLP          425 Park Avenue          New York, NY 10022          Tel: (212) 836-8000</p>	<p>Lee Carl Bromberg, Esq.          Julia Huston, Esq.          Keith E. Toms, Esq.          BROMBERG &amp; SUNSTEIN LLP          125 Summer Street          Boston, MA 02110          Tel. (617) 443-9292</p>
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I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct and that this declaration was executed at Palo Alto, California on January 9, 2007.

  
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 Cheré Robinson