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<p>(21) International Application Number: PCT/IB99/01116</p> <p>(22) International Filing Date: 28 May 1999 (28.05.99)</p> <p>(30) Priority Data:</p> <table border="0"> <tr> <td>9811771.6</td> <td>1 June 1998 (01.06.98)</td> <td>GB</td> </tr> <tr> <td>9813765.6</td> <td>25 June 1998 (25.06.98)</td> <td>GB</td> </tr> </table> <p>(71) Applicant (for all designated States except US): EUROPEAN MOLECULAR BIOLOGY LABORATORY [DE/DE]; Postfach 10.2209, Meyerhofstrasse 1, D-69012 Heidelberg (DE).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): ERITJA, Ramon [ES/DE]; European Molecular Biology Laboratory, Postfach 10.2209, Meyerhofstrasse 1, D-69012 Heidelberg (DE). GOTTSCHLING, Dirk [DE/DE]; Wertachstrasse 31D, D-89250 Senden (DE). SELIGER, Hartmut [DE/DE]; Sektion Polymere, Albert-Einstein-Allee II, D-89081 Ulm (DE).</p> <p>(74) Agent: HALLYBONE, Huw, George; Carpmaels & Ransford, 43 Bloomsbury Square, London WC1A 2RA (GB).</p>		9811771.6	1 June 1998 (01.06.98)	GB	9813765.6	25 June 1998 (25.06.98)	GB	<p>(81) Designated States: AU, CA, CN, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published <i>With international search report.</i></p> <p>(88) Date of publication of the international search report: 24 February 2000 (24.02.00)</p>
9811771.6	1 June 1998 (01.06.98)	GB						
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<p>(54) Title: METHOD OF LABELLING NUCLEIC ACID</p>								
<p>(57) Abstract</p> <p>The present invention relates to a method of labelling nucleic acid using oligonucleotide-peptide conjugates to hybridise to nucleic acid. The invention also relates to methods of production of oligonucleotide-peptide conjugates, and to nucleotide intermediates used in the generation of these conjugates that possess mercaptoethyl groups protected by tert-butylthio groups. These intermediates can form oligonucleotide-peptide conjugates through reaction with a maleimido-peptide.</p>								

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 99/01116

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 6 C07H21/00 A61K47/48 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 6 C07H C12Q A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MAC MILLAN A. M. AND VERDINE G. L.: "Engineering tethered DNA molecules by the convertible nucleoside approach" TETRAHEDRON, vol. 47, no. 14/15, 1991, pages 2603-2616, XP002123382 cited in the application page 2603, paragraph 1 page 2607, table II, entry e page 2611, paragraph 2 ---	1, 10, 11
X	WO 92 00989 A (ICI PLC) 23 January 1992 (1992-01-23) page 1	1, 10, 11
Y	page 10, last paragraph -page 12, paragraph 1 claim 10 ----- -/--	5-9

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GOODWIN, JAY T. ET AL: "Incorporation of alkylthiol chains at C-5 of deoxyuridine" TETRAHEDRON LETT. (1993), 34(35), 5549-52 , XP002123383 cited in the application	12
Y	page 5549, paragraph 1 page 5550, scheme 1, more particularly compounds 3-a, 3-b, 4-a and 4-b page 5550, last paragraph -page 551, last paragraph	5-9
X	OSBORNE, SCOTT E. ET AL: "Structure and Dynamics of Disulfide Cross-Linked DNA Triple Helixes" J. AM. CHEM. SOC. (1997), 119(6), 1171-1182 , XP002123384 cited in the application page 1174, scheme 2, compounds 12a and 13b page 1174, right-hand column, paragraph 1	12
X	SUN, SENGEN ET AL: "Efficient Synthesis of 5-Thioalkyluridines via Ring Opening of.alpha.-Ureidomethylene Thiolactones" J. ORG. CHEM. (1996), 61(17), 5708-5709 , XP002123385 page 5708, scheme 1 page 5708, paragraph 1 page 5709, right-hand column, compounds 10b and 10c page 5709, right-hand column, last paragraph	12
P,X	GOTTSCHLING, DIRK ET AL: "Synthesis of Oligodeoxyribonucleotides Containing N4-Mercaptoethylcytosin and Their Use in the Preparation of Oligonucleotide-Peptide Conjugates Carrying c-myc Tag-Sequence" BIOCONJUGATE CHEM. (1998), 9(6), 831-837 , XP002123386 the whole document	1-13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9200989 A	23-01-1992	NONE	