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(71) Applicant: **Quest Diagnostics Investments Incorporated**
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(54) **Compositions and methods for detecting mutations in JAK2 nucleic acid**

(57) The invention disclosed herein is based on the identification of novel mutations in the JAK2 gene and JAK2 protein. The invention provides compositions and methods useful for diagnosing hematopoietic diseases including, for example, myeloproliferative diseases. The invention also provides compositions and methods useful for determining a prognosis of an individual diagnosed as having a hematopoietic disease.

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EP 14 16 1006

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	ELENA ALBIERO ET AL: "A new TMHA-DHPLC assay for the rapid mutation screening of JAK2 exon 14 in myeloproliferative disorders", AMERICAN JOURNAL OF HEMATOLOGY, vol. 83, no. 7, 1 July 2008 (2008-07-01), pages 603-604, XP055131400, ISSN: 0361-8609, DOI: 10.1002/ajh.21116 * the whole document * -----	1-14	INV. C12Q1/68 G01N33/53
A	SMITH C A ET AL: "The saga of JAK2 mutations and translocations in hematologic disorders: pathogenesis, diagnostic and therapeutic prospects, and revised World Health Organization diagnostic criteria for myeloproliferative neoplasms", HUMAN PATHOLOGY, SAUNDERS, PHILADELPHIA, PA, US, vol. 39, no. 6, 1 June 2008 (2008-06-01), pages 795-810, XP022693901, ISSN: 0046-8177, DOI: 10.1016/J.HUMPATH.2008.02.004 [retrieved on 2008-06-03] * abstract * * page 800 - page 801 * -----	1-14	TECHNICAL FIELDS SEARCHED (IPC) C12Q
A	BESSES CARLOS ET AL: "JAK2 mutations at exon 12 and 14 in polycythemia vera and idiopathic erythrocytosis: Incidence and correlation with clinical characteristics", BLOOD, AMERICAN SOCIETY OF HEMATOLOGY, US, vol. 110, no. 11, part 1, 1 November 2007 (2007-11-01), page 746A, XP009157146, ISSN: 0006-4971 * the whole document * ----- -/--	1-14	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	29 July 2014	Costa Roldán, Nuria

CATEGORY OF CITED DOCUMENTS

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A	M INAMI ET AL: "Analysis of the exon 12 and 14 mutations of the JAK2 gene in Philadelphia chromosome-positive leukemia", LEUKEMIA, vol. 22, no. 1, 1 January 2008 (2008-01-01), pages 216-216, XP055131403, ISSN: 0887-6924, DOI: 10.1038/sj.leu.2404953 * the whole document *	1-14	
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T	MA WANLONG ET AL: "Splice Variant JAK2 Transcript Deleting Exon 14 in Patients with Chronic Myeloproliferative Neoplasms", BLOOD, AMERICAN SOCIETY OF HEMATOLOGY, US, vol. 114, no. 22, 1 November 2009 (2009-11-01), XP009179314, ISSN: 0006-4971 * the whole document *	1-14	

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T	WANLONG MA ET AL: "JAK2 Exon 14 Deletion in Patients with Chronic Myeloproliferative Neoplasms", PLOS ONE, vol. 5, no. 8, 13 August 2010 (2010-08-13), page e12165, XP055131407, ISSN: 1932-6203, DOI: 10.1371/journal.pone.0012165 -----	1-14	

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专利名称(译)	用于检测JAK2核酸中的突变的组合物和方法		
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申请号	EP2014161006	申请日	2009-10-22
[标]申请(专利权)人(译)	奎斯特诊断投资公司		
申请(专利权)人(译)	Quest Diagnostics公司投资INCORPORATED		
当前申请(专利权)人(译)	Quest Diagnostics公司投资INCORPORATED		
[标]发明人	ALBITAR MAHER MA WANLONG		
发明人	ALBITAR, MAHER MA, WANLONG		
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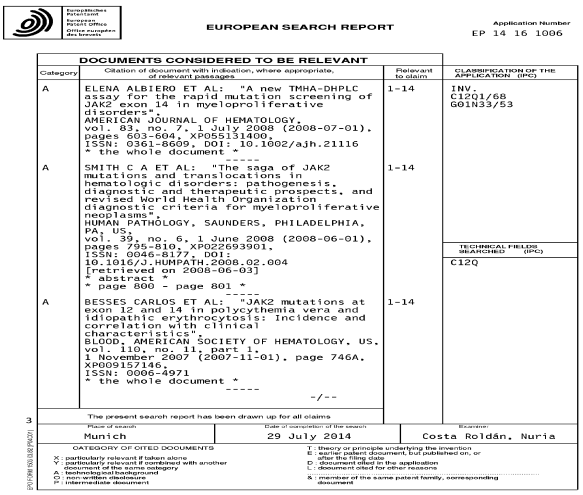
优先权	61/110501 2008-10-31 US 12/503318 2009-07-15 US		
其他公开文献	EP2770066B1 EP2770066A2		
外部链接	Espacenet		

摘要(译)

本文公开的发明基于JAK2基因和JAK2蛋白中的新突变的鉴定。本发明提供了用于诊断造血疾病的组合物和方法，包括例如骨髓增生性疾病。本发明还提供了用于确定被诊断患有造血疾病的个体的预后的组合物和方法。



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