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(71) Applicant: **Sekiyama, Atsuo**
Suita-shi, Osaka 5640063 (JP)

(72) Inventor: **Sekiyama, Atsuo**
Suita-shi, Osaka 5640063 (JP)

(74) Representative: **Duckworth, Timothy John**
J.A. Kemp & Co.
14 South Square
Gray's Inn
London WC1R 5JJ (GB)

(54) Indicator agent for noninflammatory stress response and use therefor

(57) A system enabling the molecular biological visualization and quantitative detection of events in a stress-exposed living organism and a means enabling the management of stress are provided. An indicator agent for non-inflammatory stress responses mediated by superoxide, which comprises IL-18, a visualizing agent for non-inflammatory stress responses for detecting the aforementioned indicator agent, a method of measuring the degree of non-inflammatory stress, which comprises using the aforementioned visualizing agent, a method of preventing, ameliorating or predicting a change in immune status based on a non-inflammatory stress response, which comprises applying the aforementioned visualizing agent to an animal, and a therapeutic agent for a change in immune status based on a non-inflammatory stress response for reducing the amount or activity of the aforementioned indicator agent.

FIG. 1A

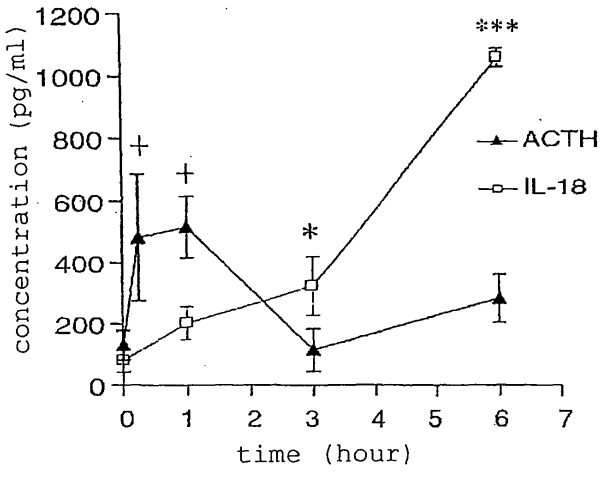

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FIG. 1B

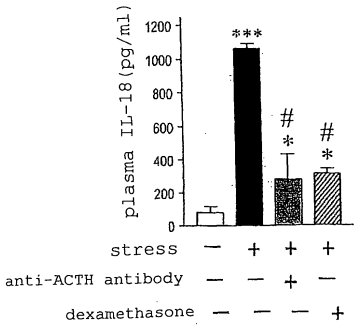

FIG. 1C

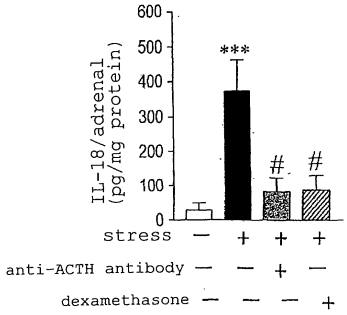

FIG. 1D

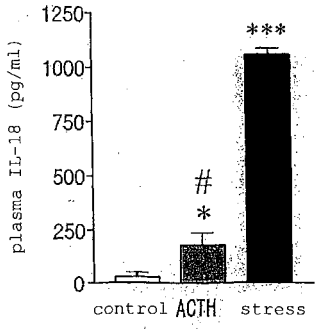

FIG. 1E

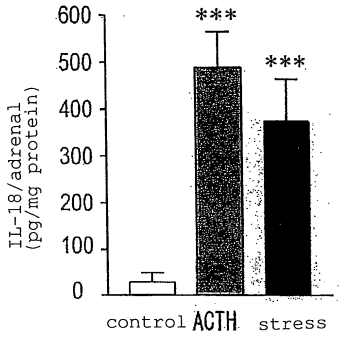

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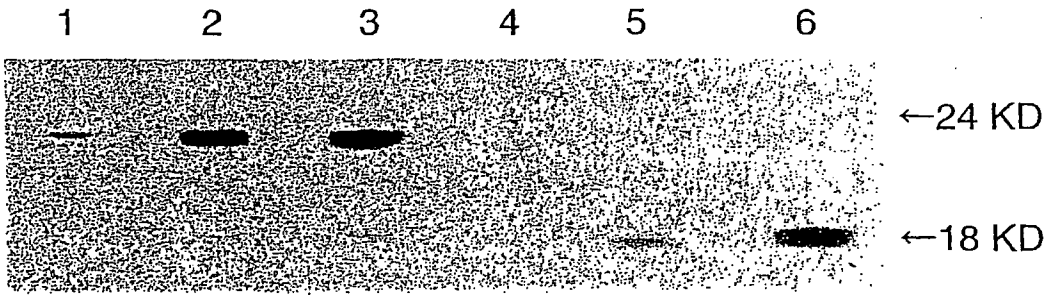
FIG. 1F



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EUROPEAN SEARCH REPORT

Application Number
EP 10 00 0021

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	KALINA U ET AL: "IL-18 activates STAT3 in the natural killer cell line 92, augments cytotoxic activity, and mediates IFN-gamma production by the stress kinase p38 and by the extracellular regulated kinases p44erk-1 and p42erk-21." JOURNAL OF IMMUNOLOGY (BALTIMORE, MD. : 1950) 1 AUG 2000 LNKD- PUBMED:10903731, vol. 165, no. 3, 1 August 2000 (2000-08-01), pages 1307-1313, XP002583330 ISSN: 0022-1767 * figure 3 * -----	1-8, 10-15	INV. G01N33/53 C12Q1/37 C12Q1/48 G01N33/573
X	WYMAN TRAVIS H ET AL: "Physiological levels of interleukin-18 stimulate multiple neutrophil functions through p38 MAP kinase activation" JOURNAL OF LEUKOCYTE BIOLOGY, vol. 72, no. 2, August 2002 (2002-08), pages 401-409, XP002583331 ISSN: 0741-5400 * figure 7 * -----	1-4,8, 13-15	TECHNICAL FIELDS SEARCHED (IPC) G01N C12Q
X	KOKAI MASAHIRO ET AL: "The restraint stress-induced elevation in plasma interleukin-18 in mice. A special reference to an action of caspase-1" EUROPEAN CYTOKINE NETWORK, JOHN LIBBEY EUROTEXT LTD, FR, vol. 14, no. SUPPL.3, 1 September 2003 (2003-09-01), page 85, XP008086375 ISSN: 1148-5493 * abstract * ----- -/--	9	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	21 May 2010	Rosin, Oliver

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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& : member of the same patent family, corresponding document

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EUROPEAN SEARCH REPORT

Application Number
EP 10 00 0021

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	KOKAI M ET AL: "Plasma interleukin-18 levels in patients with psychiatric disorders" JOURNAL OF IMMUNOTHERAPY, LIPPINCOTT WILLIAMS & WILKINS, HAGERSTOWN, MD, US LNKD-DOI:10.1097/00002371-200203001-00011, vol. 25, no. Supplement 1, 1 March 2002 (2002-03-01), page 6092, XP008086396 ISSN: 1524-9557 * abstract *	9	
X,P	SEKIYAMA ATSUO ET AL: "A stress-induced, superoxide-mediated caspase-1 activation pathway causes plasma IL-18 upregulation" IMMUNITY, CELL PRESS, US LNKD-DOI:10.1016/J.IMMUNI.2005.04.006, vol. 22, no. 6, 1 June 2005 (2005-06-01), pages 669-677, XP002474500 ISSN: 1074-7613 * the whole document *	1-15	TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims

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& : member of the same patent family, corresponding document

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专利名称(译)	用于非炎症应激反应的指示剂及其用途		
公开(公告)号	EP2177907A3	公开(公告)日	2010-07-28
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[标]申请(专利权)人(译)	关山Atsushisei		
申请(专利权)人(译)	关山，敦夫		
当前申请(专利权)人(译)	关山，敦夫		
[标]发明人	SEKIYAMA ATSUO		
发明人	SEKIYAMA, ATSUO		
IPC分类号	G01N33/53 C12Q1/37 C12Q1/48 G01N33/573		
CPC分类号	A61P1/02 A61P1/04 A61P1/14 A61P1/16 A61P1/18 A61P3/10 A61P11/00 A61P11/02 A61P11/04 A61P11/06 A61P11/16 A61P13/02 A61P13/08 A61P13/12 A61P15/00 A61P15/02 A61P15/06 A61P15/08 A61P17/00 A61P17/02 A61P17/04 A61P17/06 A61P17/12 A61P17/16 A61P19/02 A61P19/06 A61P19/08 A61P21/02 A61P21/04 A61P23/00 A61P25/00 A61P25/04 A61P25/08 A61P25/10 A61P25/12 A61P25/16 A61P25/20 A61P25/24 A61P25/28 A61P25/30 A61P29/00 A61P31/04 A61P31/10 A61P31/12 A61P31/14 A61P31/16 A61P31/18 A61P31/20 A61P31/22 A61P33/04 A61P33/06 A61P33/10 A61P35/00 A61P35/02 G01N33/573 G01N33/6869 G01N2333/54 G01N2333/5412 G01N2333/90283 G01N2800/52 G01N33/53		
优先权	2004193712 2004-06-30 JP 2005023978 2005-01-31 JP		
其他公开文献	EP2177907B1 EP2177907A2		
外部链接	Espacenet		

摘要(译)

提供了一种能够分子生物可视化和定量检测暴露于应激的生物体中的事件的系统和一种能够管理压力的装置。用于由超氧化物介导的非炎性应激反应的指示剂，其包含IL-18，用于检测上述指示剂的非炎性应激反应的可视化试剂，测量非炎性应激程度的方法，其包括使用前述可视化试剂，基于非炎性应激反应预防，改善或预测免疫状态变化的方法，其包括将上述可视化试剂应用于动物，和基于免疫状态改变的治疗剂。用于减少上述指示剂的量或活性的非炎性应激反应。

FIG. 1A