



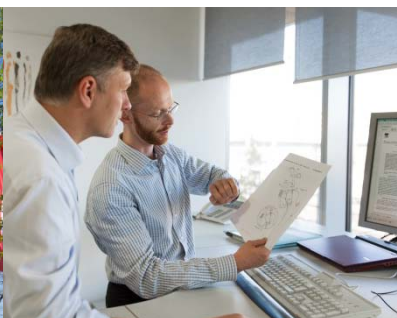
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# DOI at the EPO

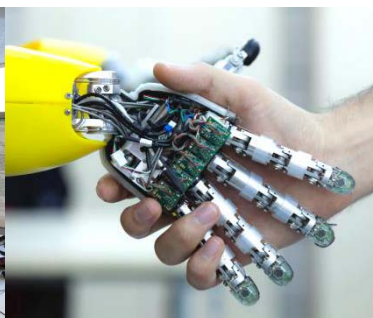
## Accessing cited NPL records



Paul SCHWANDER



EPO – Principal Directorate Information Management



16 January 2019

## Access to cited NPL

- One of the main priorities for the IP5 industry.
- Today, accessing IP5 file wrapper data is instantaneous and seamless but not cited NPL records.
- This long standing issue has been tackled at the EPO by adding Digital Object Identifiers (DOIs) to the NPL records cited and contained in EPO databases.
- A DOI is a permanent URL to a digital source:  
<http://dx.doi.org/10.1097/CJI.0b013e3182594387>

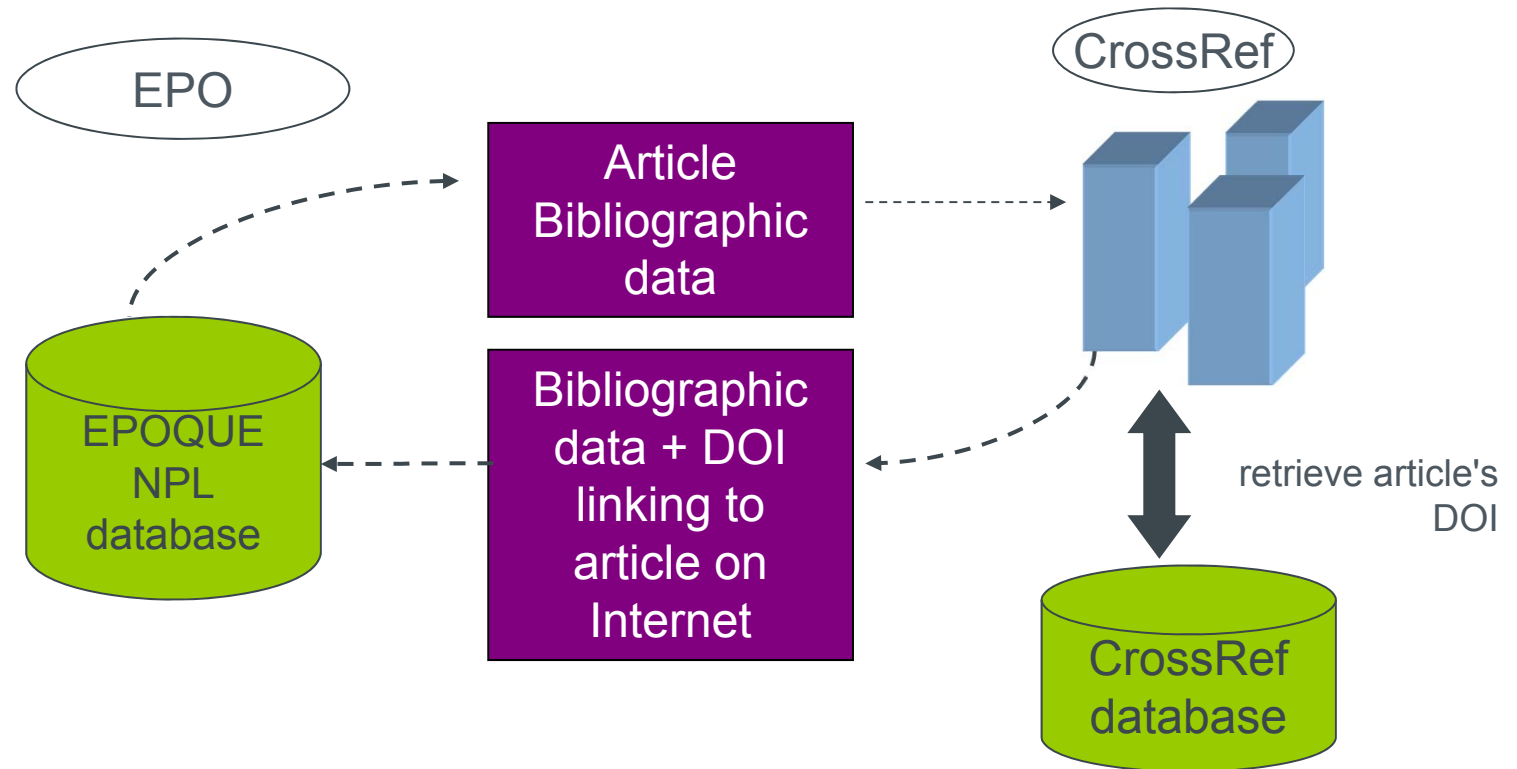
## How to assign DOIs to NPL?

- Use the service offered by an official Digital Object Identifier (DOI) Registration Agency of the International DOI Foundation.
- The EPO uses the services of Crossref an Agency launched in 1998 to support the DOI system.
- Currently used by over 5000 assigners: publishers, science data centres, movie studios, etc.
- Approximately 175 million DOI names assigned to date
- Over 5 billion DOI resolutions per year

## How does the EPO proceed?

- Crossref Member since 2005 – Membership fee.
- Crossref has a database of bibliographic data from most publisher's articles including the assigned DOI.
- All EPO NPL records (cited or loaded) without DOIs created in the last 6 months are automatically sent to the Crossref database to check if a DOI exists.
- Crossref sends the full matching records to the EPO

## DOIs for NPL records: the process



## **DOI in practice**

- 60% of EPO NPL has a DOI
- Improved matching of records between EPO databases
- Improved access for the external users without copyright infringement (ESPACENET and File Inspection)
- Project: identify collections without DOIs and contact the owners to ask them to assign DOIs
- A unique identifier for NPL records with the benefits this brings

## Examples from Espacenet

- NPL cited with DOI on [EP2950102](#) :
- **“Increased ceramide in brains with Alzheimer's and other neurodegenerative diseases”**
- DOI: <http://dx.doi.org/10.3233/JAD-2011-111202>
  
- NPL cited with DOI on [EP3243832](#):
- **“Combination of a Bispecific Antibody and Costimulatory Antibody-Ligand Fusion Proteins for Targeted Cancer Immunotherapy”**
- DOI: <http://dx.doi.org/10.1097/CJI.0b013e3182594387>

EP3243832 (A1)

**Bibliographic data**

Description

Claims

Mosaics

Original document

Cited documents

Citing documents

INPADOC legal status

INPADOC patent family

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**Bibliographic data: EP3243832 (A1) — 2017-11-15**

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**ANTIGEN BINDING MOLECULES COMPRISING A TNF FAMILY LIGAND TRIMER AND PD1 BINDING MOIETY**

**Page bookmark** [EP3243832 \(A1\) - ANTIGEN BINDING MOLECULES COMPRISING A TNF FAMILY LIGAND TRIMER AND PD1 BINDING MOIETY](#)

**Inventor(s):**

**Applicant(s):** F HOFFMANN-LA ROCHE AG [CH] ±

**Classification:** - International: [A61K39/395](#); [C07K14/705](#); [C07K16/28](#); [C12N15/62](#)

- cooperative: [C07K14/70575](#); [C07K16/2818](#); [C12N15/62](#); [C07K2317/24](#); [C07K2317/71](#); [C07K2317/78](#); [C07K2317/92](#); [C07K2319/00](#); [C07K2319/74](#); [C07K2319/75](#)

**Application number:** EP20160169487 20160513 [Global Dossier](#)

**Priority number(s):** EP20160169487 20160513

**Also published as:** [AR108453 \(A1\)](#) [AU2017264548 \(A1\)](#) [CA3023393 \(A1\)](#) → [CO2018012083 \(A2\)](#) [TW201805306 \(A\)](#) → [more](#)

**Abstract of EP3243832 (A1)**

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The invention relates to novel TNF family ligand trimer-containing antigen binding molecules comprising (a) at least one moiety capable of specific binding to PD1 and (b) a first and a second polypeptide that are linked to each other by a disulfide bond, characterized in that the first polypeptide comprises two ectodomains of a TNF ligand family member or fragments thereof that are connected to each other by a peptide linker and in that the second polypeptide comprises only one ectodomain of said TNF ligand family member or a fragment thereof.



(\*)

<input type="checkbox"/> 4. COMBINATION THERAPY COMPRISING OX40 BINDING AGONISTS AND PD-1 AXIS BINDING ANTAGONISTS					
★	<b>Inventor:</b> CHEUNG JEANNE [US] KIM JEONG [US]	<b>Applicant:</b> GENENTECH INC [US] HOFFMANN LA ROCHE [CH]	<b>CPC:</b> <a href="#">A61K2039/507</a> <a href="#">A61K2039/55</a> <a href="#">A61K38/16</a> (+6)	<b>IPC:</b> C07K16/28	<b>Publication info:</b> WO2015095423 (A2) 2015-06-25 WO2015095423 (A3) 2015-08-13
<b>Priority date:</b> 2013-12-17					

Literature cited in the search report

<input type="checkbox"/> 5. <b>Combination of 4-1BB Agonist and PD-1 Antagonist Promotes Antitumor Effector/Memory CD8 T Cells in a Poorly Immunogenic Tumor Model</b>					
★	<b>Author:</b> Chen S L-F Lee Fisher T S Jessen B Elliott M Evering W Logronio K Tu G H Tsaparikos K Li X Wang H Ying C Xiong M Vanarsdale T Lin J C	<b>Publication data:</b> CANCER IMMUNOLOGY RESEARCH, 20150201 AACR American Association for Cancer Research, US	<b>CPC:</b>	<b>Source information:</b> Vol 3 Nr 2, Page (s) 149 - 160	<b>Publication info:</b> XP055283412
<input type="checkbox"/> 6. <b>Combination immunotherapy with 4-1BB activation and PD-1 blockade enhances antitumor efficacy in a mouse model of subcutaneous tumor</b>					
★	<b>Author:</b> Shindo Y Yoshimura K Kuramasu A Watanabe Y Ito H Kondo T Oga A Ito H Yoshino S Hazama S Tamada K Yagita H Oka M	<b>Publication data:</b> ANTICANCER RESEARCH - International Journal of Cancer Research and Treatment, 20150101 International Institute of Anticancer Research, GR	<b>CPC:</b>	<b>Source information:</b> Vol 35, Nr 1, Page (s) 129 - 136	<b>Publication info:</b> XP002746546
<input type="checkbox"/> 7. <b>Combination of a Bispecific Antibody and Costimulatory Antibody-Ligand Fusion Proteins for Targeted Cancer Immunotherapy</b>					
★	<b>Author:</b> Hornig Nora Kermer Vanessa Frey Katharina Diebold Philipp Kontermann Roland E Mueller Dafne	<b>Publication data:</b> Journal of Immunotherapy, 20120601 Lippincott Williams & Wilkins, US	<b>CPC:</b>	<b>Source information:</b> Vol 35, Nr 5, Page (s) 418 - 420	<b>Publication info:</b> XP009163394

XP009163394

**Bibliographic data**

Description  
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Mosaics  
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INPADOC patent family

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**Bibliographic data: XP009163394**

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**Page bookmark** XP009163394 - Combination of a Bispecific Antibody and Costimulatory Antibody-Ligand Fusion Proteins for Targeted Cancer Immunotherapy

**NPL reference number:** XP009163394

**Publication date:**

**Author:** Hornig Nora; Kermer Vanessa; Frey Katharina; Diebold Philipp; Kontermann Roland E; Mueller Dafne

**- cooperative:**

**Publication data:** Journal of Immunotherapy, 20120601 Lippincott Williams & Wilkins, US - ISSN 1524-9557

**DOI:** <http://dx.doi.org/10.1097/CJI.0b013e3182594387>

**Source information:** Vol.35, Nr.5, Page(s):418 - 429

**Publisher accession number:**

**Patent applicant:**

**Publication number:**

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- Most used libraries:
  - Bayerisches Staatsbibliothek
  - TIB Hannover
  - Subito
  - National Library of Medicine
  - British Library
  
- 80% of orders delivered to the EPO within **1 working day!**

## **IP5 recommendations**

- Affiliate membership with Crossref
- Identify records missing DOIs in internal databases
- Use the query system of Crossref to check if DOIs exist for those records
- Apply the method to the archived NPL and update it on a regular basis
- Contact sources with no DOIs to encourage them to apply DOIs to their publications

Thank You!