



The role of standardization of CRIS systems in building Open Science Infrastructure - an example of Polish Medical Platform



About Us



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Wrocław Medical Universtiy



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Warsaw Univ.of Technology



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Warsaw Univ.of Technology



Jakub Koperwas

Business Development &
Services
Sages

National CRIS



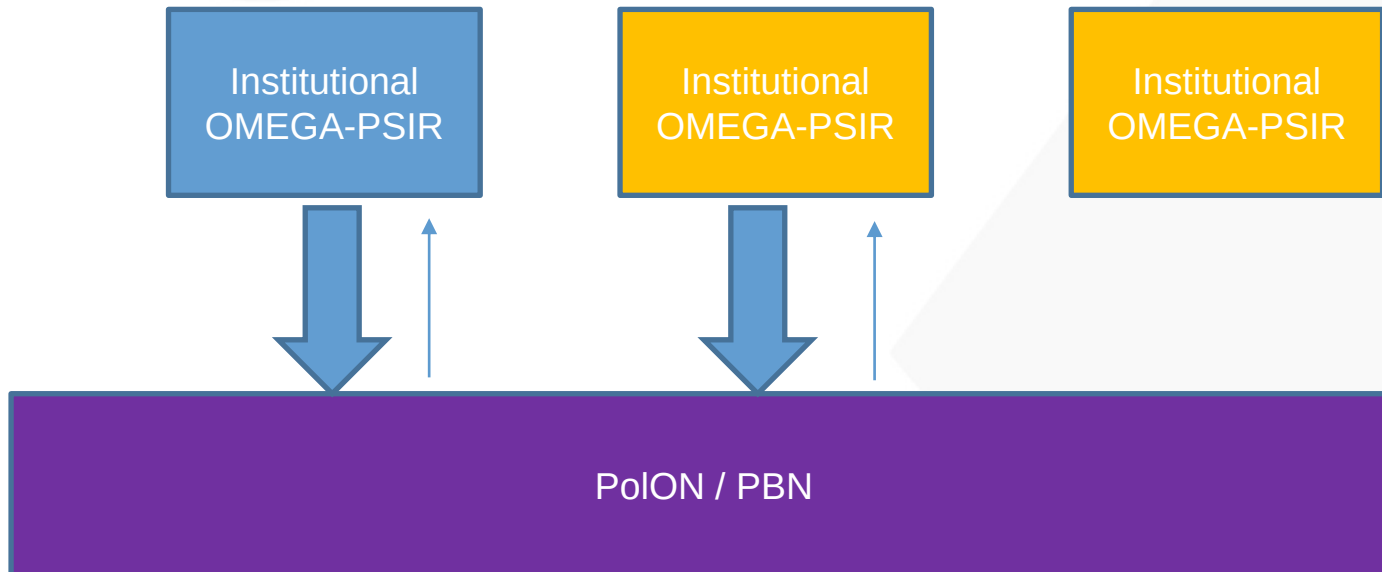
- Developed by National Information Processing Institute
National Research Institute
- A CRIS system that collects data i.a about
 - Researchers
 - Publications
 - Patents
 - Projects
 - Art. Works
- The data is accepted via GUI and fine-grained API with
standardised JSON format data
- The main goal in recent years was to provide a platform for
Assesments of Resarch Institutions in Poland

PolON problems characteristics

- Does not serve neither as platform for promotion of Researchers or Universities nor as a platform focused on individual University needs
- Data Types and Fields are strictly limited to the current law
- Data objects are not always linked
- Journal list is limited to Journals currently recognized by Ministry
- Frequent changes in regulations triggers changes in model, journal list, APIs, etc

OMEGA-PSIR $\leftrightarrow$ PoION

- Universities decide to run their own institutional CRISes
- The data is then transmitted to PoION/PBN via API
- Usually data is pushed but sometimes is also pulled



All-in-one Research Information Management System



OMEGA-PSIR

Current Research Information System

Research Profiling System

Institutional Repository

Research Data Repository

Omega deployments



Discover

Country

India	394
Norway	132
Italy	76
United Kingdom	72
United States	43
Germany	39
Poland	39
Spain	37
Netherlands	18
Finland	16
next >	

Software

IRINS	393
Pure	173
CRIStin	131
In-house-built	75
IRIS	70
Omega-PSIR	37
DSpace-CRIS	30
Symplectic Elements	23
Converis	19
VIVO	16
next >	

Status

Operational	991
Under Construction ...	24
Closed ...	2
In Preparation ...	1

10 more under way

Publications

- Books
- Papers & chapters
- Not published materials
- Research data

Multimedia resources

- Media
- Catalogs

Theses

- Engineer's / Bachelors theses
- Masters theses
- Postgraduate theses
- PhD theses

Projects

- Projects applications managed by COP
- Projects managed by COP
- Projects managed by faculties
- Project applications
- All projects
- Calls for proposals

The set of
collected resources
in OMEGA is wider
then in PoLON

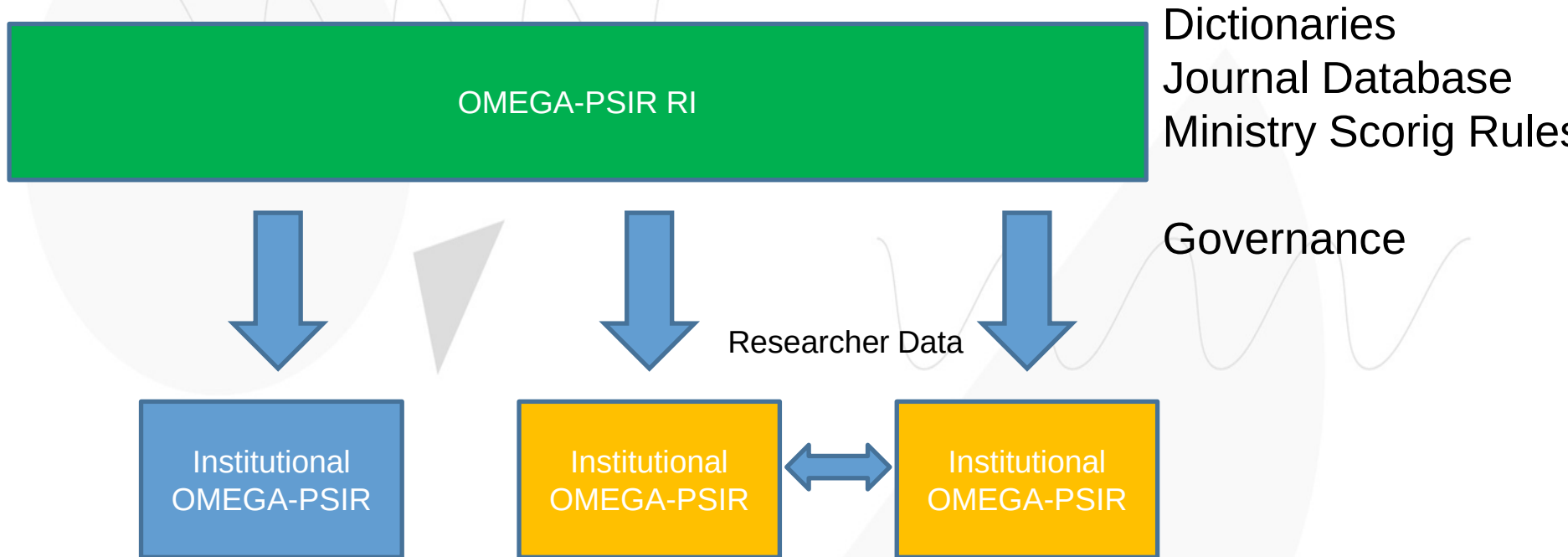
Patents, products, implementations

- Architectural & artistic works
- Professional activity
- Professional achievements (career)
- Journal published by unit
- Events
- Press / media

Auxiliary Functions

- Affiliations
- Domains
- Authors and employees
- Institutions (including corporate authors)
- Teams (research, expert, scientific, other)
- Conferences (events)
- Conferences (series)
- Conferences organized by unit
- Journals and series
- Languages
- Countries, organizations (for patents)
- Area, domain, discipline, study subject
- Study subjects, specialization
- Activity types
- Data sources
- Term types
- Dictionary data managed by COP
- Terms
- Laboratories
- Research apparatus (infrastructure)

OMEGA-PSIR $\leftrightarrow$ OMEGA-PSIR



Dictionaries

- Conferences (series)
- Conferences organized by unit
- Journals and series
- Languages
- Countries, organizations (for patents)
- Area, domain, discipline, study subject
- Study subjects, specialization
- Project types (old model)
- Project types managed by COP
- Project types managed by faculties
- Project/program types
- Activity types
- Data sources
- Term types**
- Dictionary data managed by COP
- Terms
- Laboratories
- Research apparatus (Infrastructure)
- MeSH
- General search for objects all types
- Import
- Admin Functions
- Users
- User groups

Editor's panel Researchers Research Outputs Research potential Promotion More About PPM

Term types

Search (using previous criteria)

Clear search

[Search by example](#)

Select record to edit; To create new record use the button

New

Reload

Number of records: 169 [Correct search](#)

☒ ☐ ☐ Order by: name ☐ ☐

Export 0 as: Full CSV

☐ press_category (Kategoria opinii prasowych)

[i](#) [↶](#) [Q](#) [✎](#) [✎](#)

☐ phd_category (Kategoria pracy doktorskiej)

[i](#) [↶](#) [Q](#) [✎](#) [✎](#)

☐ publication_category (Kategoria publikacji)

[i](#) [↶](#) [Q](#) [✎](#) [✎](#)

☐ report_category (Kategoria raportu)

[i](#) [↶](#) [Q](#) [✎](#) [✎](#)

☐ event_category (Kategoria wydarzenia)

[i](#) [↶](#) [Q](#) [✎](#) [✎](#)

☐ conferenceevent_category (kategoria wydarzenia konferencji)

[i](#) [↶](#) [Q](#) [✎](#) [✎](#)

☐ teamCategory (Kategoria zespołu)

[i](#) [↶](#) [Q](#) [✎](#) [✎](#)

☐ media_technicalCategory (Kategorie techniczne mediów)

[i](#) [↶](#) [Q](#) [✎](#) [✎](#)

☐ administratorUnit (Komórka administratora)

[i](#) [↶](#) [Q](#) [✎](#) [✎](#)

Dictionaries

Activity types

Search (using previous criteria)

Clear search

[Search by example](#)

Select record to edit; To create new record use the button

New

Number of records: 55 [Correct search](#)

☒ ☐ ☐ Order by: hierarchy  

Export 0 as: Activity types

Activity group

☐ Additional functions	     
☐ Appearance in mass media - TV / radio / press	     
☐ Editorial work	     
☐ Expert	     
☐ Implementation of a patent / technology / system	     
☐ Membership in the council / board / committee etc. of a professional body	     
☐ Membership in the editorial board of a journal, series, collection	     
☐ Mobility of scientists	     
☐ Organizing a conference / workshop / course / seminar	     
☐ Other activities	     
☐ Other scientific and research activities	     
☐ Prizes, scholarships, distinctions	     
☐ Social and political activities	     

Appearance in mass media - TV / radio / press

—

Journal List

- Events
- Press / media
- Comments and user feedback
- Auxiliary Functions
- Affiliations
- Domains
- Authors and employees
- Institutions (including corporate authors)
- Teams (research, expert, scientific, other)
- Conferences (events)
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- Countries, organizations (for patents)
- Area, domain, discipline, study subject
- Study subjects, specialization
- Project types (old model)
- Project types managed by COP
- Project types managed by faculties
- Project/program types

AAA ⓘ 🇵🇱 ⋮ 🔔 👤

🏠 Editor's panel Researchers ▾ Research Outputs ▾ Research potential ▾ Promotion ▾ More ▾ About PPM ▾

Journals and series

Search (using previous criteria)

Clear search

[Search by example](#)

Select record to edit; To create new record use the button

New

Number of records: 1860 [Correct search](#)

☒ ☒ ☐ Order by: name



⋮ Export 0 as: Full CSV ▾

☐ 2 + 3 D: grafika plus produkt - ogólnopolski kwartalnik projektowy, ISSN 1642-7602, Quarterly, (0 pkt), Record status: Verified (emilia.nowakowska)



☐ Pielęgniarstwo w Stanach Nagłych, ISSN 2544-1337, Quarterly, (0 pkt), Record status: Completed, [Record administrator: 'xeditor_PW']



☐ ABI Expert : prawne i techniczne aspekty ochrony danych informacji, ISSN 2451-3970, Quarterly, (0 pkt), Record status: Completed



☐ Academia. Magazyn Polskiej Akademii Nauk, ISSN 1733-8662, (0 pkt), Record status: Completed, [Record administrator: 'xeditor_PW']



☐ Uniwersyteckie Czasopismo Socjologiczne/Academic Journal of Sociology, ISSN 2544-3062, e-ISSN 2299-2367, Semiannual, (20 pkt, 2018[B, 3]), Record status: Completed



☐ Akademia Zarządzania, ISSN 2544-512X, Quarterly, (20 pkt), Record status: Verified (emilia.nowakowska), [Record administrator: 'xeditor_PW']



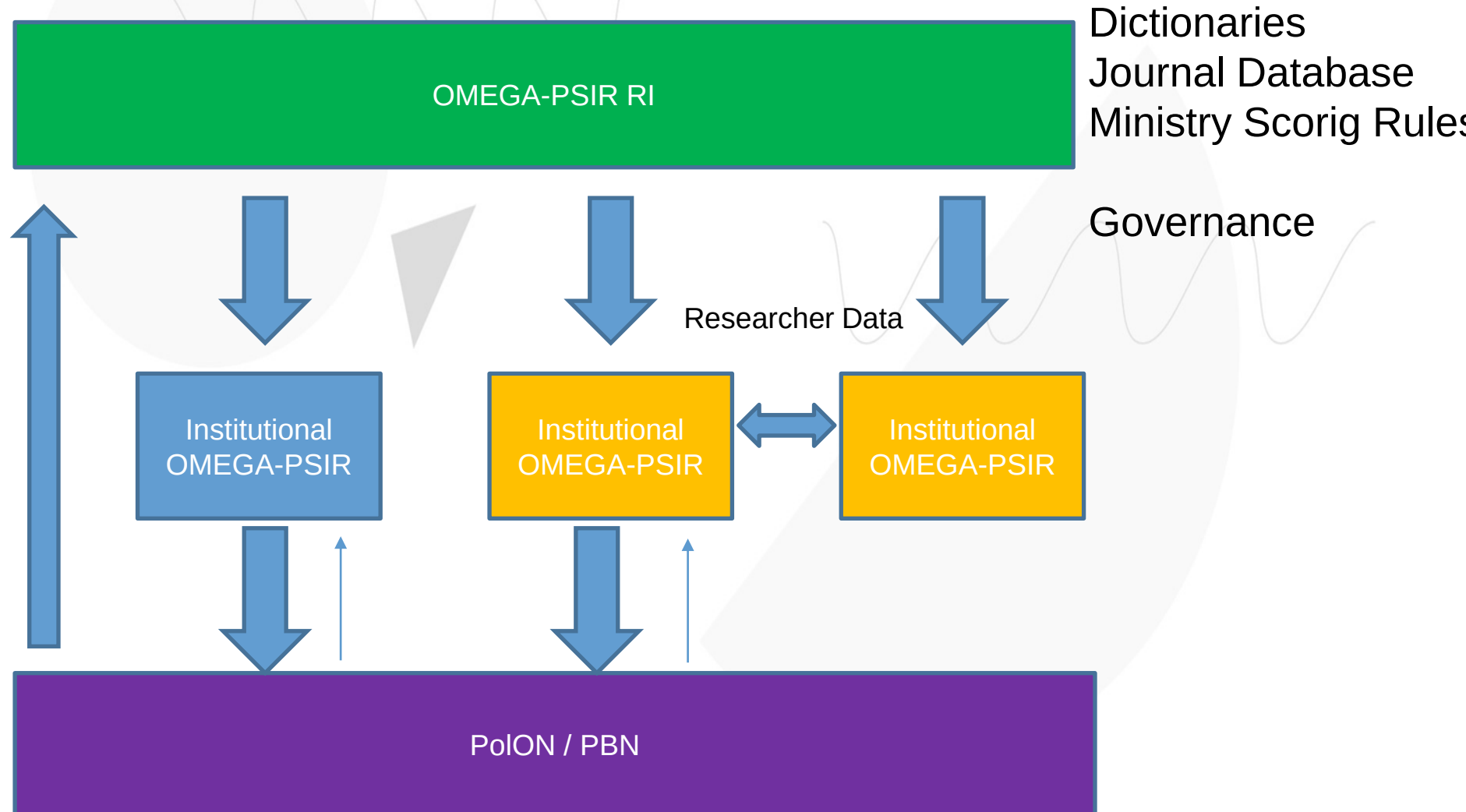
☐ Acta Agraria et Silvestria. Series Agraria, ISSN 0065-0919, Annual, (0 pkt, Not active), Record status: Completed



☐ Acta Agrophysica, ISSN 1234-4125, e-ISSN 2300-6730, (B 20 pkt, 2018[B, 14]), Record status: Completed, [Record administrator: 'xeditor_PW']



OMEGA-PSIR ↔ OMEGA-PSIR ↔ PoION





Polish Platform of Medical Research

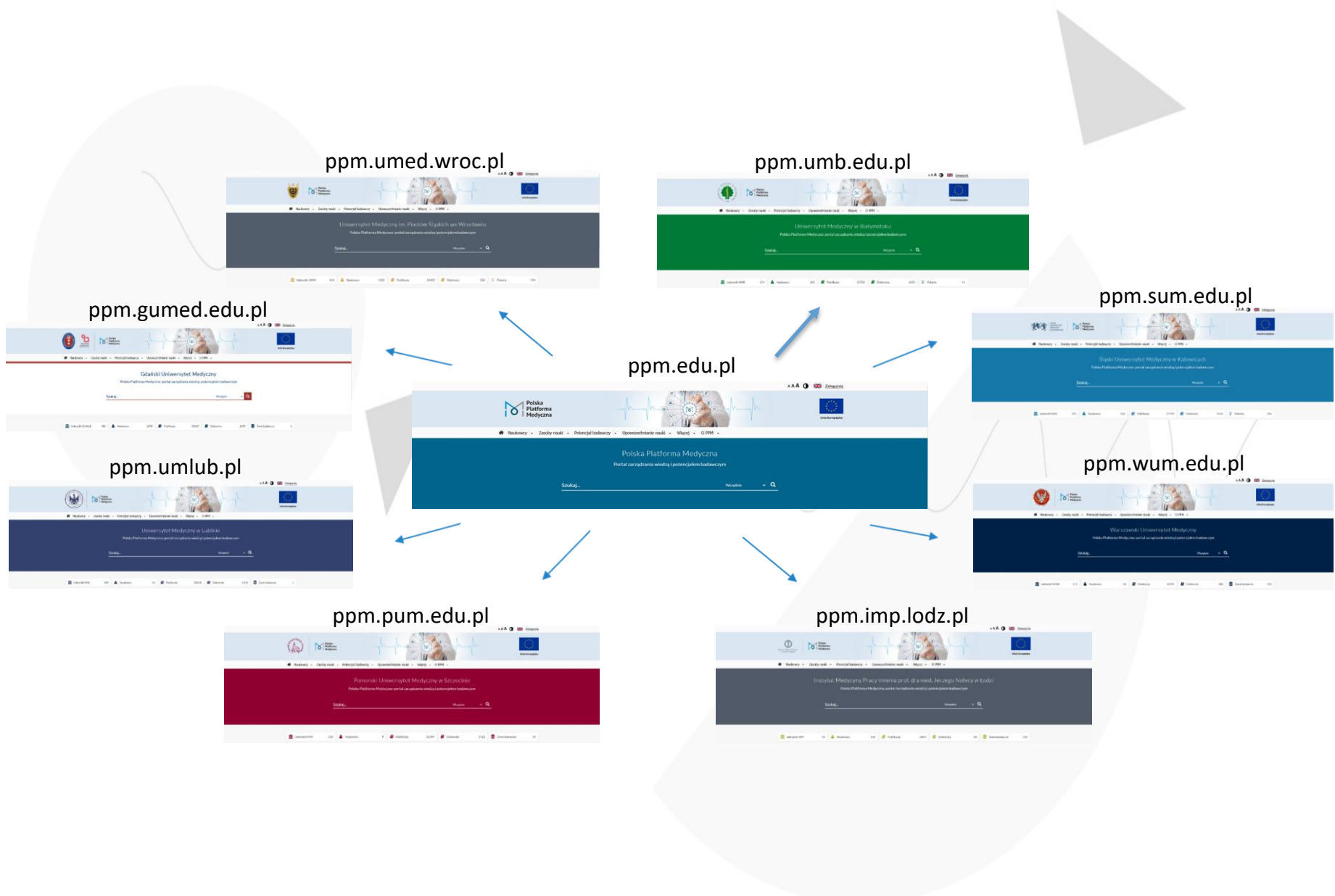


Project Goals



“The main goal of a project was to build a platform for the purpose of presenting and promoting scientific achievements and research potential of medical research institutions”

- *ensuring open access (repository of research data and full-text documents),*
- *aggregating all research-related information in one platform (scientific achievements, research potential, research outputs etc),*
- *creating a database of experts in various fields of medicine (scientists’ profiles),*
- *increasing the accessibility of resources collected by Project Partners for the visually and hearing impaired by adapting and digitally presenting data in accordance with WCAG 2.0 standards (currently WCAG 2.1),*
- *improving the openness of shared resources by increasing their availability according to the five Star Open Data scale.*



+Integration of Internal Systems!

Central Platform



AAA



Researchers ▾ Research Outputs ▾ Research potential ▾ Promotion ▾ More ▾ About PPM ▾

Polish Platform of Medical Research

A knowledge and research potential platform

Search...

Everywhere



Research Units

1915



People

8966



Publications

310329



PhD theses

12043



Research data

385



Patents

792



Projects

2798



Infrastructure

252



Laboratories

76



Multimedia

26

Open Access in PPM



Publications

50444



PhD theses

2014



Research data

385

Novelties in the Repository



Publications

681



PhD theses

45

Disciplines

Researcher Profiles

🏠 Researchers ▾ Research Outputs ▾ Research potential ▾ Promotion ▾ More ▾ About PPM ▾

You are here: [Start](#) > [Researchers](#) > [Profiles](#) > **Piotr Zbigniew Dzięgiel**

[Back](#)

Person profile



Piotr Zbigniew Dzięgiel

[Department of Histology and Embryology](#)

[Faculty of Medicine](#)

[Wrocław Medical University](#)

Email: piotrdziediel@umw.edu.pl



Profile

[Publications](#) [Promoted theses](#) [Patents](#) [Projects](#) [Activities](#) [Achievements](#) [Citations](#) [Statistics](#) [Cooperation](#)

Achievements summary

Publications
Supervision
Patents
Participation in projects
Professional activity
Professional achievements

842
6
5
4
13
13

Career



Research area

Science discipline:

[3.2 medical sciences: 100% N](#)

Specialization:

[patomorfologia](#)

Bibliometry*

h-index (Scopus Citations)
h-index (WoS Citations)
Total IF
Total SNIP
Total CiteScore

28
30
682.374

Identifiers

<https://orcid.org/0000-0002-8292-1385>

[Scopus profile](#)

Related pages

[ORCID](#)
[Scopus](#)
[EuropePMC](#)
[Crossref](#)



Graph

☒ Affiliations ☐ People ☐ External institutions

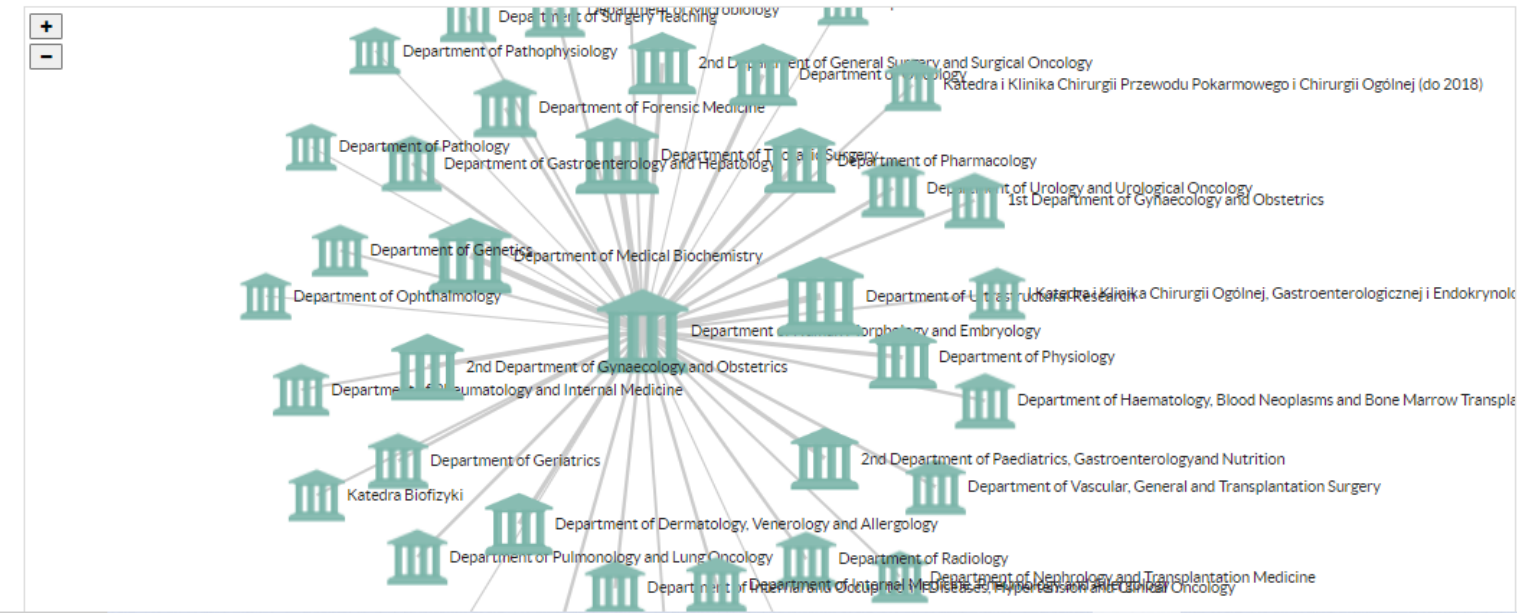
- ☒ Display entity names

☐ projects ☒ publications

cooperation threshold

cooperation period: 2015-2020

A horizontal timeline bar with a blue gradient, starting at 2015 and ending at 2020. The years 2015, 2016, 2017, 2018, 2019, and 2020 are marked along the bar.



Research Dataset Repository



Polska Platforma Medyczna



Unia Europejska

NaukowcyZasoby naukiPotencjał badawczyUpowszechnianie naukiWięcejO PPM

Jesteś tutaj: Start > Zasoby nauki > Dane badawcze

Dane badawcze

Szukaj...

Liczba pozycji: 56

☐ Open Access
☐ Zdeponowano w repozytorium

☒ Uporządkuj wg: tytuł

[Pokaż w formacie](#) [Raport](#)

Lata
od: do:

Autor
każdy z

☐ Association between cytoprotective genes expression and DNA damage
Rezka Edyta, Lesicka Monika, Wiczonek Edyta / in: 21.05.2020
MeSH: DNA Damage / genetics; Gene Expression; Urinary Bladder Neoplasms

☐ Association between cytoprotective genes expression and oxidative DNA damage

Jesteś tutaj: Start > Zasoby nauki > Dane badawcze > Association between cytoprotective genes expression and DNA damage

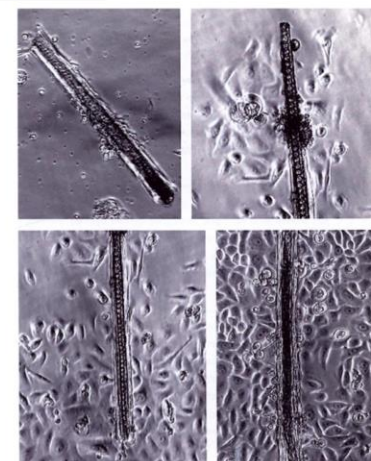
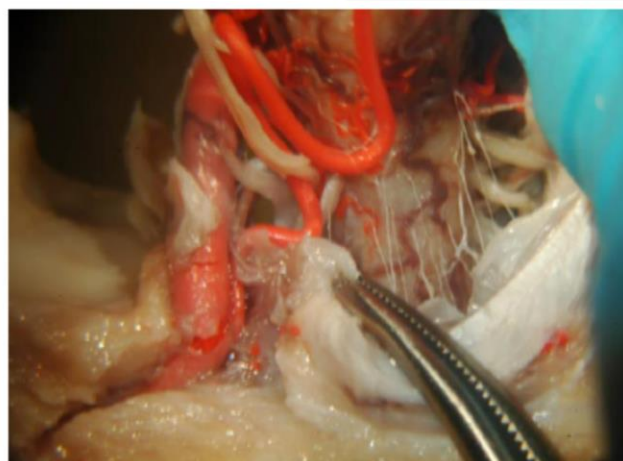
[Pokaż](#)

Association between cytoprotective genes expression and DNA damage

Identyfikator pozycji	IMPS363f47d5d35425e91f0b84e12868b79
Typ danych	Dane proste
Autor	Edyta Rezka, Monika Lesicka, Edyta Wiczonek, Ewa Jabłońska, Beata Janasik, Maciej Stępnik
Tytuł w języku angielskim	Association between cytoprotective genes expression and DNA damage
Data opublikowania	2020-05-21
URL	https://www.mdpi.com/2072-6694/12/5/1296/s1
Powiązane artykuły	Rezka Edyta, Lesicka Monika, Wiczonek Edyta / in: Dysregulation of Redox Status in Urinary Bladder Cancer Patients, Cancers, 2020, vol. 12, nr 5, s. 1296. DOI:10.3390/cancers12051296  
Plik	 TableSS.csv dostępny od: 01-10-2020 
Słowa kluczowe w języku angielskim	DNA damage, comet assay, selenium, selenoproteins, NRF2-target genes, DNA methylation and histone deacetylation, gene expression, urinary bladder cancer, blood, recurrence
MeSH	DNA Damage / genetics Gene Expression Urinary Bladder Neoplasms
Dodatkowe pola systemowe	importid: 1601739954741
Pola dodatkowe	Licencja (pole dodatkowe): CC BY 4.0

Table S1. 103 Top Genes ($p < 0.005$) Associated with the Risk of Lung Cancer in GWAS (sorted by chromosome locations)

Gene	Gene ID	Description	Location			p All Cases (984)	p^* AC only (997)
			Chr	Start	End		
DNAJC16	23341	DnaJ (Hsp40) homolog, subfamily C, member 16	1	15526813	15571733	7.12E-05	0.0010
AGMAT	79814	Agmatine ureohydrolase (agmatinase)	1	15571699	15585110	0.0015	0.0036
DDI2	84301	DDI1, DNA-damage inducible 1, homolog 2	1	15617458	15661057	0.0007	0.0068
RSC1A1	6248	Regulatory solute carrier protein, family 1, member 1	1	15659869	15661722	0.0006	0.0049
PLEKHM2	23207	Pleckstrin homology domain containing, family M (with RUN domain) member 2	1	15684137	15734769	0.0024	0.0060
ZDHHC18	84243	Zinc finger, DHHC-type containing 18	1	26828710	26855720	0.0022	0.0218
GNP2	54707	GPN-loop GTPase 2	1	26879382	26890378	0.0026	0.0198
ZBTB80S	339487	Zinc finger and BTB domain containing 8 opposite strand	1	32620820	32651000	0.0036	0.0028
MKNK1	8569	MAP kinase interacting serine/threonine kinase 1	1	46557407	46604294	0.0019	0.0065
TACSTD2	4070	Tumor-associated calcium signal transducer 2	1	58575423	58577494	0.0011	0.0006
ZRANB2	9408	Zinc finger, RAN-binding domain containing 2	1	71063291	71081289	0.0050	0.0012
ENSA	2029	Endosulfine alpha	1	150622123	150629622	0.0044	0.0187
GOLPH3L	55204	Golgi phosphoprotein 3-like	1	150646225	150697196	0.0039	0.0042
CTSS	1520	Cathepsin S	1	150730196	150765957	0.0032	0.0042
ARNT	405	Aryl hydrocarbon receptor nuclear translocator	1	150809705	150876768	0.0008	0.0022
SETDB1	9869	SET domain, bifurcated 1	1	150926339	150964913	0.0030	0.0063



[Back](#)

Description

The apparatus is used for the sequencing of whole genomes, transcriptomes, exomes, human methylomes or other species of plants, animals and microorganisms.

2010

Specification in Polish

Kompletny system do automatycznego sekwencjonowania wraz ze stacją roboczą do obsługi sekwencjatora wraz z pełnym pakietem oprogramowania. System detekcji oparty o działanie kamery CCD, system analizy znaczników fluorescencyjnych, pojedyncze odczyty sekwencji o długości 400 nukleotydów, dokładności pojedynczego 99,5% na fragmencie 250 nukleotydów, 400 tys odczytów w trakcie pojedynczego cyklu pracy, odczyt 1000 milionów zasad w trakcie pojedynczego cyklu pracy, dokładność złożonej sekwencji 99,99%, końcowa wielkość nie zanalizowanych danych nie przekraczająca 100Gb z jednego cyklu sekwencjonowania. Klaster do analizy danych wraz z pełnym pakietem oprogramowania danych 5-cio węzłowy Klaster typ Turnkey, obudowa typu Rack, 10 procesorów dwurdzeniowych Intel Xeon Dual Core 2.33 Ghz, 32 GB pamięci operacyjnej, 3TB pamięci trwałej Interfejs Gigabit Ethernet,

Laboratories

Laboratorium Analityczne Katedry Zdrowia Środowiskowego

Profil laboratorium

il laboratorium

		Uprawnienia	Rodzaj uprawnień	uprawnienia1
Data zmiany	2021-08-09		Nazwa PL	Badania chemiczne
Zagadnienia specjalistyczne	Badania chemiczne g		Nr decyzji	AB 1717
Informacje dodatkowe	Gleba Zawartość pier 20000) mg/kg, Metod sprężonej (ICP-OES) Kadm (0,0044 - 2,00) i atomizacją elektroterm		Data przyznania uprawnienia	17-06-2019
			Organizacja potwierdzająca	Polskie Centrum
			Lokalizacja organizacji potwierdzającej	POLSKA

Procedury badawcze

Nazwa PL	Zawartość pierwiastków w: glebie, warzywach i ich przetworach i owocach morza i ich przetworach	Akredytacja krajowa
Data od	2019-06-17	
Data do	2023-06-16	
Zakres procedury PL	Ryby i przetwory rybne Owoce morza i ich przetwory Zawartość pierwiastków w: glebie, warzywach i ich przetworach i owocach morza i ich przetworach mg/kg Metoda fluorescencyjnej spektrometrii atomowej (CVAFS) PB nr 2, wersja III z dnia 01.06.2021 r. Gleba Zawartość pierwiastków w: glebie, warzywach i ich przetworach i owocach morza i ich przetworach mg/kg Metoda fluorescencyjnej spektrometrii atomowej (CVAFS) PB nr 2, wersja III z dnia 01.06.2021 r. Kadm (0,19 - 400) mg/kg Ołów (15 - 8000) mg/kg Cynk (15 - 8000) mg/kg Metoda fluorescencyjnej spektrometrii atomowej ze wzbudzeniem w pl	

Social Activity

The dark side of psychiatry, Dominika Dudek



Media title in Polish

The dark side of psychiatry

Author

Dominika Dudek (WL/KaPs/KPD)

Affiliation unit

Faculty of Medicine (WL)

Main URL

<https://www.youtube.com/watch?v=2ud6KQPL3rY>

Year

2018

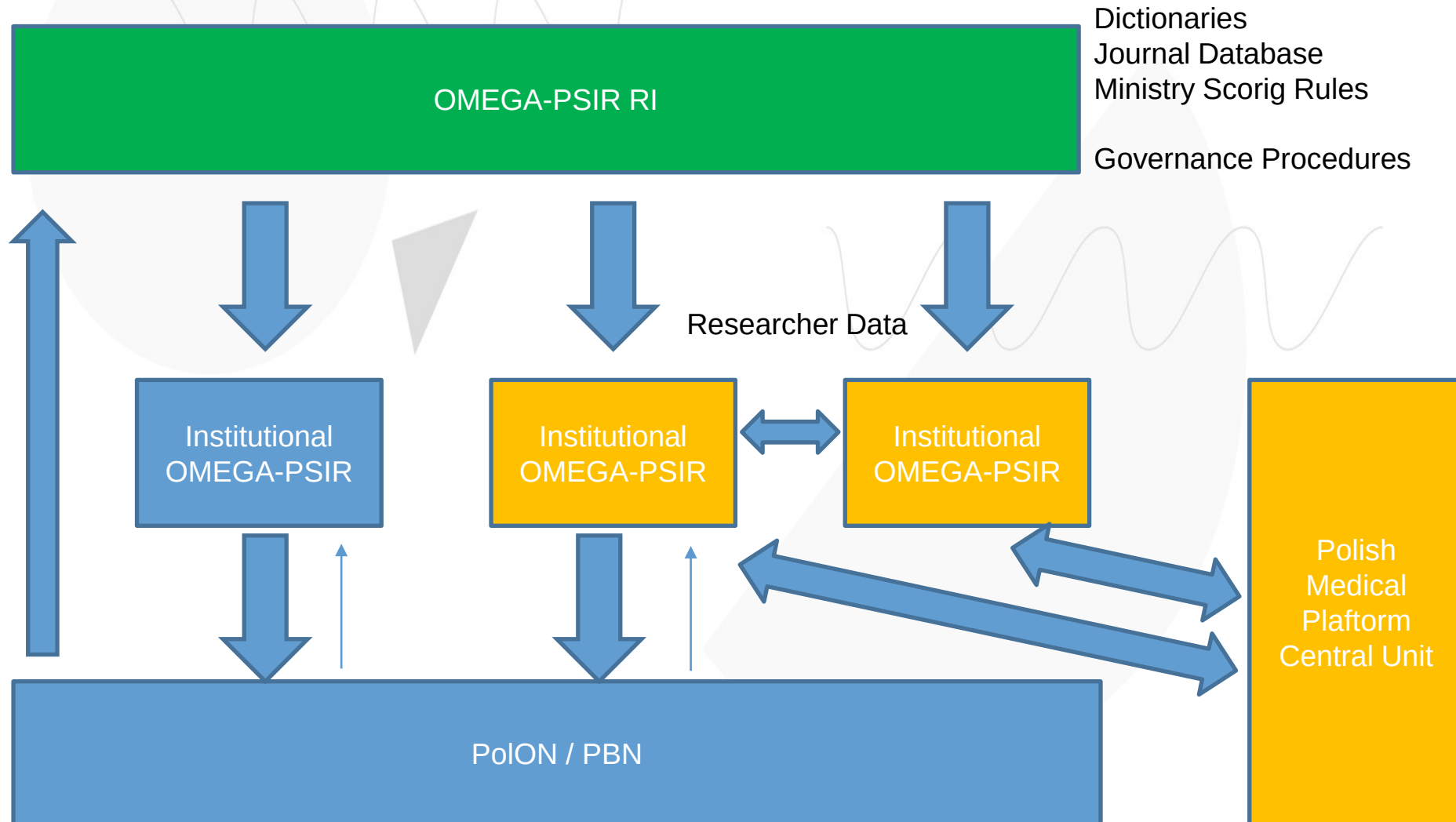
Description in Polish

Wykład prof. Dominiki Dudek o tym, jak w toku dziejów zmieniało się podejście do chorób psychicznych i osób, które na nie cierpią.

Further Candidates



The final (?) big picture



Polish edition of MeSH

MeSH Public Portal

MeSH Translation Tool



U.S. National Library
of Medicine



Accessibility for physically impaired

MeSH

[!\[\]\(c507f772dba2b921f86777f01218e570_img.jpg\) Arthritis, Rheumatoid](#)

[!\[\]\(4729e517bc6a7cd81c8025b9646574fb_img.jpg\) Gait](#)

[!\[\]\(cbe80b694ebd74fcfe136a095b608235_img.jpg\) Foot](#)

[!\[\]\(a03a7eb2f4046e1d3c76772003e549ea_img.jpg\) Foot Deformities](#)

DOI

[DOI:10.5114/aoms.2020.94970](https://doi.org/10.5114/aoms.2020.94970)

URL

<https://www.termedia.pl/Gait-disturbances-in-patients-with-rheumatoid-arthritis,19,40557,0,1.html>

Language

eng (en) English

License

[CC BY-NC-SA](#)

File



0000065468.pdf

publication date: 19-10-2020



0000065468-wcag.pdf

publication date: 19-10-2020



Score (nominal)

100

Score source

Bibliografia UMB

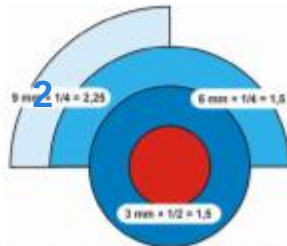


Figure 1. The treatment scheme by MMS technique in which the excision of the margins of 3 mm was done threshold on various parts of the periphery (100, 50, 25%). The narrowest lateral margin of excision (Marg min MMS) = 3 mm, the widest lateral margin (Marg max MMS) = 9 mm, whereas the mean lateral margin (Marg mean MMS) = 5.25 mm [(3x30%) + (5x20%) + (9x20%)] or [(3x100%) + (5x75%) + (9x25%)].



Figure 2A. Recurrent, morpheo-like Basal Cell Cancer (firstly biopsy after treatment with photodynamic therapy and cryosurgery), with unclear borders, measuring 23x25 mm. Width of hypothetical standard excision margin set at 6.5 mm (arithmetic mean of the largest hypothetical (8 mm) and smallest (5 mm)).

"low risk types" (solid, adenoid, cystic, superficial, pigmented) - in 232 cases (34.73%), whereas in 38 cases (5.68%) the histologic pattern was unidentified. The excision widths at each stage ranged from 1 to 5 mm (on average 2.23 mm), depending on the probability of malignant infiltration and tumor location (the narrowest margins were employed in the orbital area).

To our knowledge, no medical publication which would enable to determine the exact relations between excision margins in MMS and EPM (considered by majority of surgeons worldwide to be basic) has been presented so far. Therefore the authors set their sights on measuring and elaborating the comparative indexes, describing in particular the rate of radicality (completeness) of tumor removal, as well as the rate of extension of post-operative defects.

Materials and methods

In every of 668 cases of Basal Cell Cancer (BCC) treated by Mohs Micrographic Surgery (MMS) between 1994 and 2010 the following values were defined:

a) Maximum width of excision in MMS [Marg max MMS] (measured at the last stage of proceedings from the noticeable border of a tumor to the furthest excision margin) (Figures 1 and 2B). The value may be regarded as equivalent of the necessary width of Excision with Predetermined Margins (EPM), indispensable for complete tumor eradication. It also reflects approximately the extensiveness of tumor infiltration.

b) Mean width of excision in MMS [Marg mean MMS] (calculated as sum of the products of given width of excision margin's and the corresponding fraction of excision perimeter. (Figures 1 and 2B). This value reflects approximately the extent of post-operative defect.

c) Hypothetical width of Excision with Predetermined Margins [Marg EPM]. It was defined by arithmetic mean between the maximum hypothetical margin (designed with intention of full unquestionable cure) and the "sparing" hypothetical margin (designed with intention of tissue conservation and sufficient probability of cure). The value of [Marg EPM] expressed both, the quality of rationally high curability and at the same time certain tendency for preservation of tissue. (Figures 1 and 2B)



Figure 2B. Malignant infiltrate and the stages of their serial excisions are illustrated on a digital map of the tumor. The treatment method by Mohs Micrographic Surgery was carried out in four stages, performing the resection at each of the stages at various parts of the periphery (inner) margins of 3 mm. Minimum excision margin in MMS technique was in this case 6 mm, the maximum excision margin- 12 mm, the average excision margin 8.7 mm (3 x100% + 3x100% + 3 x75% + 3x12%).

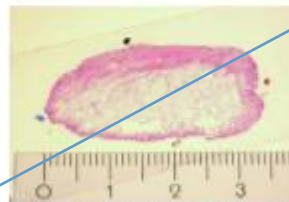


Figure 2C. The own technique of histological processing allows to perform large tissue sections. In this case, one histologic specimen represents tissues of 3x6x17 mm (the dimensions of histologic specimens are about 10-20% smaller than one tissue due to the shrinkage during preparation).



Figure 2D. The final lesions, with unpredictable shapes and sizes was covered with a full-thickness skin graft. The index of completeness of tumor removal (ICR) was 104% (12.6.5), and the index of extensiveness of the defect (IED) was 113% (8.7.6.5). In demonstrated case, the technique of MMS proved to be more radical (of 84%), and led to the more extensive tissue lesion (of 35%), compared to a hypothetical standard Excision with Predetermined Margins.

- Reading order
- Headers
- Descriptions of figures

The values of [Marg max MMS] and [Marg mean MMS] were compared (by division) to [Marg EPM], thus determining the two new indexes:

1. The index of radicality of tumor removal [IRTR] [Marg max MMS] / [Marg EPM].
2. The index of extent of postoperative defects [IED] [Marg mean MMS] / [Marg EPM].

The data were collected, systemized and pre-analyzed using the Excel 2010 tools. The same spreadsheet was also used to calculate the mean values of the studied parameters, variation and incidence of certain states and graphs. For further analysis, the package Statistica 10.0 GB was used. For all quantitative study statistically significant level of $p < 0.05$ was considered. With the rejection of the hypothesis of the normality of distribution of studied variables by Shapiro-Wilk test, the non-parametric Wilcoxon matched pairs test was used in comparisons.

Results

a) [Marg max MMS] ranged from 1 mm to 40 mm (on average 5.07 mm, median 4.00, SD 3.79) (Table 1, Figure 3).

Table 1. Margins of excisions of BCC's in Mohs Micrographic Surgery - the largest [Marg max MMS] and mean [Marg mean MMS], as well as the hypothetical margins of standard Excision with Predefined Margins [Marg EPM], calculated during the treatment of 608 cases of Basal Cell Cancers, in increments of 5 mm.

	[Marg.max.MMS]		[Marg.mean.MMS]		[Marg.EPM]	
Width of excision margins (mm)	N	%	N	%	N	%
[0, 5]	466	69.97%	509.00	83.44%	353	83.03%
[5, 10]	172	28.83%	85.00	12.70%	110	16.52%
[10, 15]	16	2.40%	9.00	1.35%	3	0.45%
[15, 20]	6	0.90%	1.00	0.15%	0	0.00%
[20, 25]	1	0.15%	2.00	0.30%	0	0.00%
[25, 30]	3	0.45%	0.00	0.00%	0	0.00%
[30, 35]	0	0.00%	0.00	0.00%	0	0.00%
[35, 40]	2	0.30%	0.00	0.00%	0	0.00%

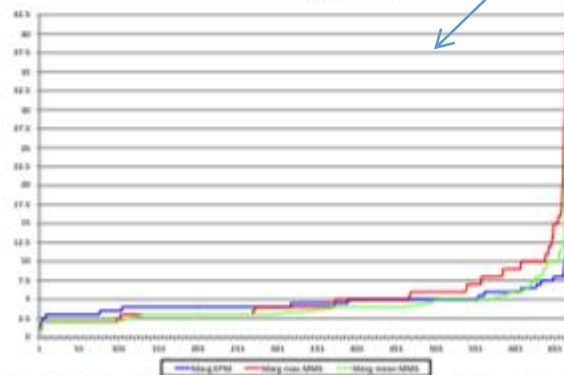


Figure 3. The largest margin of excision in MMS [Marg max MMS] (red line), the mean margin of excision in MMS [Marg mean MMS] (green line), and the hypothetical width of standard excision with predefined margins [Marg EPM] (blue line), determined during treatment of 608 Basal Cell Cancers with use of Mohs Micrographic Surgery (X-axis - depicts number of patients, Y-axis depicts width of given margins in millimeters).

b) [Marg mean MMS] ranged from 1 mm to 24.1 mm (on average 4.01 mm, median 3.44 mm, SD 2.24). (Table 1 and Figure 3).

c) [Marg EPM] was in each case from 1 mm to 15 mm (on average 4.62 mm, median 4.5, SD 0.54). (Table 1 and Figure 3).

d) [IRTR] ranged from 33.33% to 444% (on average 106.20%, median 91.61%, SD 0.54). (Table 2 and Figure 4). The difference between [Marg max MMS] and [Marg EPM] was not statistically significant ($p=0.157$).

e) [IED] ranged from 33.33% to 344.41% (on average 84.93%, median 80.00%, SD 0.27) (Table 2 and Figure 4). The difference between [Marg mean MMS] and [Marg EPM] was statistically significant ($p=0.000$).

Discussion

The largest lateral excision margin of BCC's in MMS [Marg max MMS] (corresponding approximately to the range of malignant infiltration as well as the radicality of tumor excision) ranged from 1 to 40 mm (on average 5.07 mm, median 4.00, SD 3.79) (Figure 3). In a significant proportion of cases these margins were extensive; in 30.03% of cases they exceeded 5 mm; in 4.20% - 10 mm; and in 1.80% - 15 mm. (Table 1, Figure 2, Figure 3). In rare cases they reached nearly 4 cm from the visible boundary of the tumor. Such extensive malignant infiltration was not in any way possible to predict before the surgery. Our results are consistent with the data presented by Leibovich who found extensive infiltrations of BCC's in approximately 20% of cases. The results of our investigations confirmed, that the average aggressiveness of tumors in our patients was high. We also revealed statistically significant differences between the range of lateral malignant infiltration of primary BCC's (4.88 mm) and secondary BCC's (6.27 mm) ($p=0.012$ 947), groups of BCC's with high (6.17 mm) and low (4.04 mm) histological recurrence risk ($p=0.000$, 000), and the groups of tumors of various sizes <5 mm (5.35 mm), $5 \leq x < 10$ (4, 12 mm), $10 \leq x < 20$ (5.03 mm), $20 \leq x < 50$ (6.53 mm), $50 \leq x$ (9.68 mm) ($p=0.000$ 000-0,025933). Similar differences were claimed by other researchers [9].

- Data series
- Tables with contrast

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Explains abbreviations





Thank You

Questions