

ORSAA Literature Review Database – Getting Started

We have populated the database with data from several data sources PubMed, the EMF portal and ARPANSA. You will **not be** allowed to change data as the guest access you have read-only access, but you can search the data or do **FIND** searches. The results of these searches can be downloaded into a CSV file.

1. Automatic Log On https://n432.fmphost.com/fmi/webd#Research_Review_V4

FILEMAKER GO

You can also download FILEMAKER Go at your Apple apps store (Free) and run this application on your IPAD. The Android version is not available yet but is coming. You will be presented with the main screen. Note the top navigation bar at the top of the screen.

HOW TO SEARCH THE ORSAA DATABASE

(see next page)

Follow these instructions to do your own search of the ORSAA database.

Remember, this is just one example of a search done in February 2023 to look for Effects studies, so it is a snapshot in time. In February 2023, there were over 4,500 papers in the database.

Step 1 - Enter Find Mode

Open the database and select the magnifying glass icon on the top bar.

Select **Enter Find Mode**. An empty template will appear.

Go to the **Result** box (bottom left corner) and click the arrow to open the drop-down menu. To see Effect studies, choose **==Effect** (== is the operator for 'match whole word or empty').

NOTE: If you don't choose **==Effect** and you just type in 'Effect', then you will get results for all 3 categories: Effect, No Effect, and Uncertain Effect.

The screenshot displays the search interface of the ORSAA database. At the top, there is a navigation bar with a search icon, a 'Request' dropdown, a magnifying glass icon, a plus sign, a 'Perform' button, and a 'Cancel' button. Below this, there are several input fields: '1st Author' with an 'Add' and 'Select' button, 'Authors' with a 'Country' dropdown, 'Web URL' with a 'URL' button, and 'Article URL' with a 'URL' button. A 'Synopsis Below' section is visible, along with a 'Date Published' field and a '< ICNIRP Limit' dropdown. A green button labeled 'Spreadsheets View & CSV Download' is present. At the bottom, there is a 'Result' dropdown menu set to '==Effect', a 'Non-Experimental Supporting Study (NESS)' dropdown, a 'Retraction' dropdown, and a 'Review' button. A red button is also visible. At the very bottom, there is a 'Search No' field and a 'Find Paper' button.

Step 2 - Select Study Categories

At the top, select the **Study Categories** tab.
For this example, we will pick **in vivo** and **Animal Study**.

Request

Article End Points Exposure **Study Categories** Effects Categories Study Statistics

in vitro N Y

in vivo N Y

Animal Study N Y

Plant Study N Y

Insects N Y

Avian N Y

Marine N Y

Micobes N Y

Human Provocation N Y

Epidemiology N Y

Prospective Design N Y

Meta - Analysis N Y

in silico N Y

Non-Experimental Supporting Studies (NESS)

Dosimetry Studies N Y

Measurement Studies N Y

Guideline Reports N Y

Questionnaire- Survey N Y

Other Categories Non-Experimental Supporting Studies (NESS)

Review Studies N Y

Non-EMF supporting study N Y

Letter to the Editor - Commentary N Y

ARPANSA Source

Government	Private	Public Not-for-Profit	Industry	Institutional	WHO/United Nations	Not Known
<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y

Funding Source

Step 3 – Perform a Find

Click the blue **Perform** button at the top.

At the top you will see how many studies were found (this example shows 905/4,578).

The screenshot shows a search interface with a top navigation bar containing a search bar with the text "Quick Find" and a search icon. Below the search bar, there are several tabs: "Article", "End Points", "Exposure", "Study Categories", "Effects Categories", and "Study Statistics". The "Study Categories" tab is active.

Under the "Study Categories" tab, there are several sections of filters, each with a yellow button and a radio button (N or Y):

- in vitro** (N selected)
- in vivo** (Y selected)
- Animal Study** (Y selected)
- Plant Study** (N selected)
- Insects** (N selected)
- Avian** (N selected)
- Marine** (N selected)
- Micobes** (N selected)
- Human Provocation** (N selected)
- Epidemiology** (N selected)
- Prospective Design** (N selected)
- Meta - Analysis** (N selected)
- in silico** (N selected)

There are also two main sections for **Non-Experimental Supporting Studies (NESS)**:

- Dosimetry Studies** (N selected)
- Measurement Studies** (N selected)
- Guideline Reports** (N selected)
- Questionnaire- Survey** (N selected)

Below these, there is a section for **Other Categories Non-Experimental Supporting Studies (NESS)**:

- Review Studies** (N selected)
- Non-EMF supporting study** (N selected)
- Letter to the Editor - Commentary** (N selected)

Underneath, there is a section for **ARPANSA Source** with a dropdown menu and two buttons: "ARPANSA Summary" and "Summary Totals".

Below that is a table with columns for funding sources and radio buttons (N or Y):

Government	Private	Public Not-for-Profit	Industry	Institutional	WHO/United Nations	Not Known
<input checked="" type="radio"/> N <input type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input checked="" type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y

Below the table is a section for **Funding Source** with a text box containing the text: "This study was supported by a grant from the Qazvin University of Medical Sciences."

At the bottom, there is a red bar with the text: "51 Effects of microwaves (950 MHz mobile phone) on morphometric and apoptotic changes of rabbit epididymis"

Step 4 – Explore Individual Studies

Click the **Article** tab on the top to see the first study.

You can download the study by clicking the green **Spreadsheet View and CSV Download** button.

Select the **End Points** tab at the top to see the endpoints researchers were studying for.

Select the **Effects Categories** tab to see the effects that were found in the study.

Click the < and > buttons on the top bar to move from one article to the next.

The screenshot displays a web interface for a research article. At the top, there is a navigation bar with a search icon, a 'Quick Find' input field, and a 'Found 905 / 4,576' indicator. Below this is a tabbed interface with 'Article' selected. The article details include:

- Title:** Effects of microwaves (950 MHz mobile phone) on morphometric and apoptotic changes of rabbit epididymis
- 1st Author:** Azadi. Includes fields for initials (E), a count (36), and buttons for 'Add', 'Select', and 'Check for other publications by Author'.
- Authors:** Azadi Oskouyi E, Rajaei F, Safari Variani A, Sarokhani MR, Javadi A. Includes a 'Country' dropdown set to 'IRN'.
- Web URL:** <http://www.ncbi.nlm.nih.gov/pubmed/25060044?dopt=Abstract> with a 'URL' button.
- Article URL:** <http://onlinelibrary.wiley.com/doi/10.1111/and.12321/abstract> with a 'URL' button.

Below the details is a 'Synopsis Below' section with a 'Date Published' of 25/07/2014 and an 'ICNIRP Limit' indicator. A prominent green button labeled 'Spreadsheets View & CSV Download' is visible. The abstract text reads:

Abstract

The effect of mobile phone radiation on human reproduction system is still a matter of debate. In this study, 18 male rabbits were randomly divided into two experimental groups and one control group. Experimental groups received simulated microwaves with the frequency of 950 MHz and the output power of 3 and 6 watts for 2 weeks, 2 h a day. After a week of rest, the microscopic slides from the quada of the excised epididymis were prepared. Then, the diameter of epididymis, the height of epithelium and the number of apoptotic cells in epithelium in study groups were determined. The data were compared using spss software and one-way anova test. The epithelial height and diameter of the epididymis in 3 watt and 6 watt groups had a significant decrease compared to the control group ($P < 0.001$), while the testosterone level only in 6 watt group was significantly decreased compared to control group. The rate of apoptosis in the epithelial cells of the epididymis had a significant increase only in 6 watt group compared to the control group ($P < 0.001$). This study showed that the microwaves with the frequency of 950 MHz can have negative impacts on morphometric and apoptotic changes of rabbit epididymis.

The epididymis is a tube that connects a testicle to a vas deferens in the male reproductive system.

At the bottom, there is a 'Result' dropdown set to 'Effect', a 'Non-Experimental Supporting Study (NESS)' indicator, 'Retraction' and 'Review' buttons, and a green 'EXIT' button. A red box with the number '51' is also present.

Step 5 – See a Summary of all the Studies

In the **Effects Categories** tab, you will see a **Find Summary Totals** button in the bottom right corner.

Click **Find Summary Totals** to get an instant summary of all the studies and what biological effects were discovered in each category.

Script Is Paused

Found 905 / 4,578

Quick Find

Find Search Summary Totals

Peer Reviewed Studies Showing Biological Effects Number of records used : 905 of 4578

Auditory Dysfunction / Hearing loss / Tinnitus	7	Apoptosis (Programmed Cell Death)	89	Brain Tumours	2
Blood Brain Barrier Permeability Changes	16	Breast Cancer	0	Cellular Stress	36
Brain Development / Neuro Degeneration	63	Biochemical Changes	326	EEG changes / Brain Waves	24
Neuro Behavioural Effect / Cognitive Effects	141	Cell Irregularities/ Damage/ Morphological Changes	197	Effects on Mitochondria	34
Calcium Influx / Efflux	15	Fatigue	0	Altered Enzyme Activity / Protein Levels / Protein Damage	358
Circadian Rhythm Disruption	9	Altered Gene Expression	116	Headaches/Migraines	0
DNA Damage / Mutagenic / Genotoxic	97	Altered Glucose Level / Glucose Metabolism	24	Inflammation	23
Endocrine / Hormone Effects	87	Cardiovascular Effects	35	Hepatic Effects (Liver)	50
Miscarriage / Spontaneous Abortion / Foetus Resorption	2	Immune System Effects	73	Impaired / Reduced Healing/ Bone Density Changes	6
Memory Impairment	55	Oxidative Stress / ROS/ Free Radicals	287	Speech Impairment	0
Sperm /Testicular Effects	86	Sleep Effects	6	Haematological Effects	78
Tumour Promotion	12	Neurotransmitter Effects	43	Synergistic/Combinative E	32
Thyroid Effects	21	Visual Disturbances/ Ocular Effects	18	Autism	5
Leukemia	0	Parotid Gland Malignancy	1	Neoplasia/ Hyperplasia (Abnormal Tissue Growth)	4
Depression	4	Induced Adaptive Response	35	Dizziness / Vertigo / Vestibular Effects	4

 May have a role in disease pathway/ well-being
 A known disease

[Continue](#)

Step 6 - Return to the Main Screen

To return to the main screen, click on the green **Continue** button in the bottom right corner (you might have to click it more than once).

You can continue to explore individual studies in your current search results or start again at Step 1 to begin a new search.

To watch a training video of this process, go to <https://www.orsaa.org/search-examples-effect-and-category.html>