

ORSAA Literature Review Database – Getting Started

We have populated the database with data from a number of sources PubMed, EMF portal and ARPANSA reports and EMF monthly literature surveys. You will **not be** allowed to change data as the guest access has read-only access but you will be able to do Search of the data or FIND.

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 (It's 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 screen.

The screenshot displays the ORSAA Literature Review Database interface. At the top, there is a navigation bar with tabs: Article, Exposure, ARPANSA Categories, Effects Categories, Study Statistics, and Bradford Hill Criteria. The 'Article' tab is selected. Below the navigation bar, there are several input fields for record entry:

- Title:** Analysis of rat testicular proteome following 30-days exposure to 900 MHz electromagnetic field radiation
- 1st Author:** Sepehrmanesh
- Authors:** Sepehrmanesh M, Kazemipour N, Saeb M, Nazifi S
- Web URL:** <http://www.emf-portal.de/viewer.php?aid=25672&l=e>

Below these fields, there is a section titled 'Synopsis Below' with a 'Record Added by' dropdown menu (Steve Weller) and a 'Date Published' field (18/10/2014). The synopsis text is as follows:

Aim : The effects of a whole body exposure of rats to a 900 MHz electromagnetic field on the protein expression pattern in the testes should be investigated.

Background: 20 rats were divided into the following groups (n=5 each group): 1) sham exposure, 2) 1 h exposure, 3) 2 h exposure and 4) 4 h exposure. Experiments were conducted at least in triplicates.

Methods : Molecular biosynthesis: total protein concentration in testes: Bradford protein assay; protein separation: two-dimensional gel electrophoresis (isoelectric focusing, SDS-polyacrylamide gel electrophoresis), silver nitrate staining; protein identification in testes: MALDI-MS-TOF(=time of flight)/TOF-mass spectrometry others: weight of testes investigated material: isolated bio./chem. substance (in vitro), isolated organ (in vitro), testes, tissue homogenates, proteinsinvestigated organ system: reproductive system.

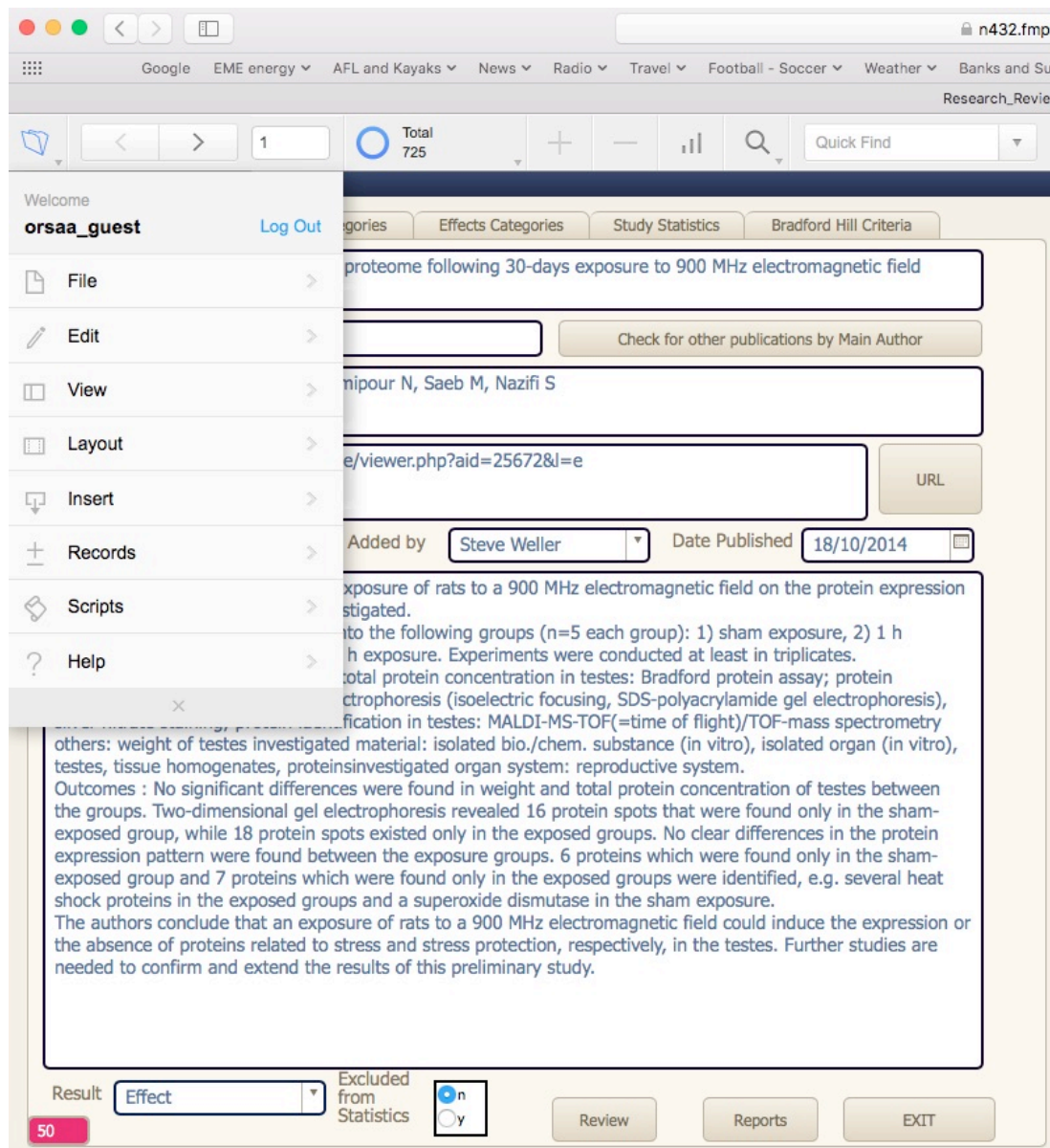
Outcomes : No significant differences were found in weight and total protein concentration of testes between the groups. Two-dimensional gel electrophoresis revealed 16 protein spots that were found only in the sham-exposed group, while 18 protein spots existed only in the exposed groups. No clear differences in the protein expression pattern were found between the exposure groups. 6 proteins which were found only in the sham-exposed group and 7 proteins which were found only in the exposed groups were identified, e.g. several heat shock proteins in the exposed groups and a superoxide dismutase in the sham exposure.

The authors conclude that an exposure of rats to a 900 MHz electromagnetic field could induce the expression or the absence of proteins related to stress and stress protection, respectively, in the testes. Further studies are needed to confirm and extend the results of this preliminary study.

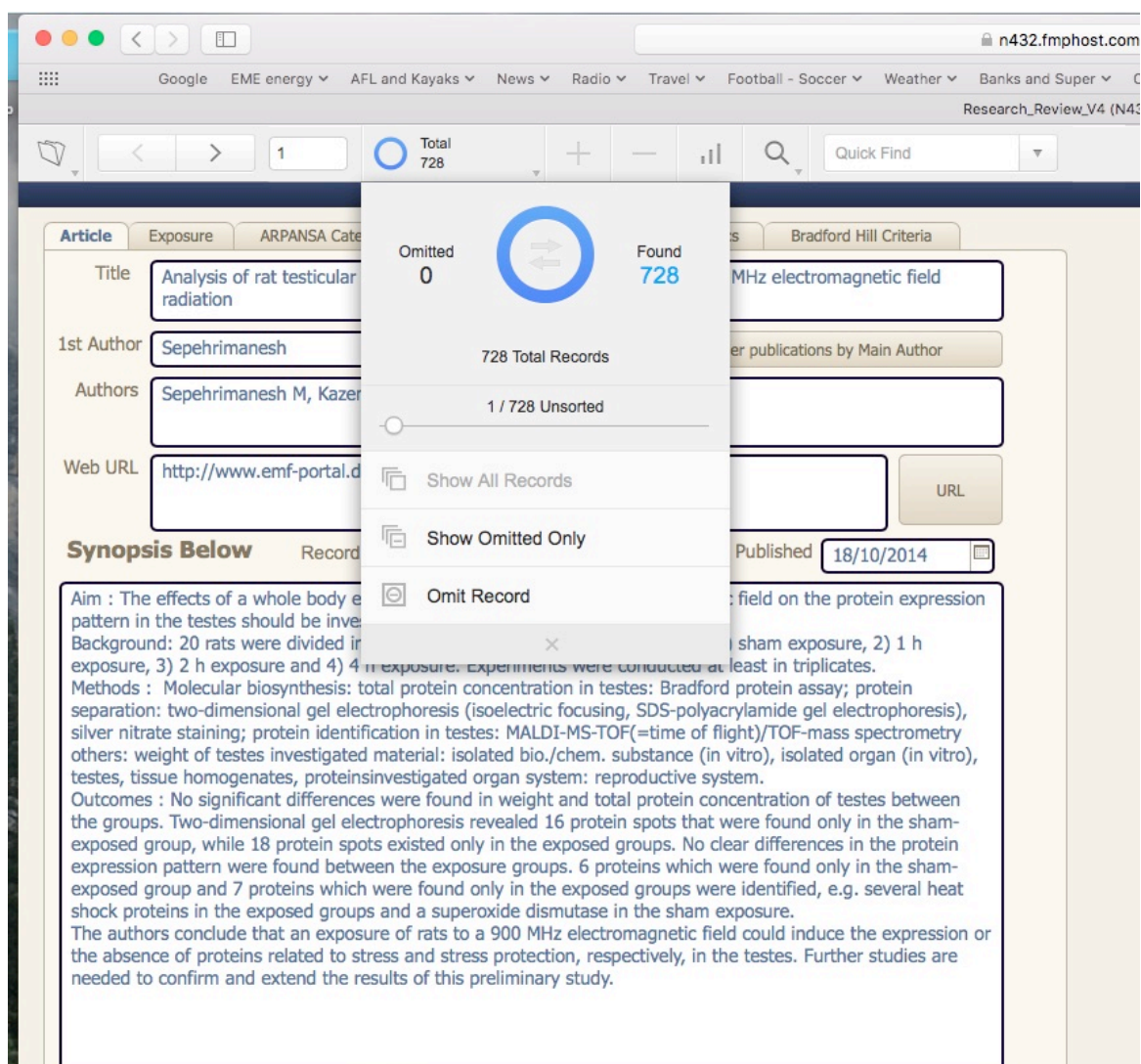
At the bottom of the form, there is a 'Result' dropdown menu (Effect), an 'Excluded from Statistics' checkbox (checked), and three buttons: Review, Reports, and EXIT. A pink bar at the bottom left shows the number 50.

You are at record No 1 use the > key to move through records also not the blue circle which show 725 records. The icon of interest is the search “spy-glass” icon and the quick find box. The total number of records at the time of creating this document was 725 , you will find this number has increased.

You can log out by pushing the <EXIT> button on the bottom right hand corner or you can use the drop down under the folder icon on the tool bar as shown below and press “Log Out”.



Also note the drop down arrow in the total box. It will show selected records after a FIND search. To get back all the records click on “Show All Records “ at present it shows all the 725 records. You can scroll through records by moving the slide bar at the base of around the scroll wheel. As a Guest log-in you only have read-only rights



You can check out the TAB along the top of the table. The “Exposure” TAB can have a number of experiments attached to the one paper. This is a one-to-many relationship. Similarly the “Study Statistics” TAB can have a number of statistical summaries attached to a case study.

2. FIND SEARCHS

Click on the Magnifying or spy-glass and a drop down will appear select Enter Find Mode.

The following screen will appear and in the Authors do a wildcard search for HARDELL or hardell its not case sensitive The FIND Search will do a search for HARDELL in the authors list. You can put an * (wildcard) before and after the name or a word search show by “=” (match whole word or empty field word search) before the word you are searching for in the database. When you enter the find screen you will notice the blue highlighted **Perform** button. This will drop down and select for a constraint search.

The screenshot shows a web browser window with the address bar displaying 'n432.fmphost.com'. The browser's address bar and search bar are visible. Below the browser window, there is a navigation bar with several tabs: 'Article', 'Exposure', 'ARPANSA Categories', 'Effects Categories', 'Study Statistics', and 'Bradford Hill Criteria'. The 'Article' tab is currently selected. The main content area contains a search form with the following fields and controls:

- Title:** A text input field.
- 1st Author:** A text input field.
- Authors:** A text input field containing the text '=hardell'.
- Web URL:** A text input field.
- Check for other publications by Main Author:** A button.
- URL:** A button.
- Synopsis Below:** A large text area for entering the synopsis.
- Record Added by:** A dropdown menu.
- Date Published:** A date input field.
- Result:** A dropdown menu.
- Excluded from Statistics:** A radio button with 'n' selected and 'y' unselected.
- Buttons:** 'Review', 'Reports', and 'EXIT' buttons.

The conclusion of the find search you will note you have selected 36/728 or you have selected 36 out of 728 records where the word “Hardell ” is found the string of authors names.

https://n432.fmphost.com/fmi/webd#Research_Review_V4

Research_Review_V4 (N432)

Found 36 / 728

Quick Find

Article Exposure ARPANSA Categories Effects Categories Study Statistics Bradford Hill Criteria

Title Use of mobile and cordless phones and survival of patients with glioma

1st Author Hardell

Check for other publications by Main Author

Authors Hardell L, Carlberg M.

Web URL http://www.ncbi.nlm.nih.gov/pubmed/23095687?dopt=Abstract

URL

Synopsis Below Record Added by Steve Weller Date Published 24/10/2012

Aim : Survival of patients after glioma diagnosis in relation to the use of mobile phones and cordless phones was investigated in a case-control study in Sweden. The present study is based on the study population of the case-control studies of Hardell et al (2006), Hardell et al (2011) and Hardell et al (2010).

Results: For glioma, the use of wireless phones (mobile and cordless phones) gave a hazard ratio (HR) = 1.1 (95% confidence interval, CI = 0.9-1.2), with > 10-year latency HR = 1.2 (95% CI = 1.002-1.5, p trend = 0.02). For astrocytoma grade I-II (low-grade), the results were, HR = 0.5 (95% CI = 0.3-0.9) and for astrocytoma grade IV (glioblastoma), HR = 1.1 (95% CI = 0.95-1.4), with > 10 year latency HR = 1.3 (95% CI = 1.03-1.7). In the highest tertile (> 426 h) of cumulative use, HR = 1.2 (95% CI = 0.95-1.5) was found for glioblastoma. The results were similar for mobile and cordless phones.

Conclusion : Decreased survival of glioma cases with long-term and high cumulative use of wireless phones was found. A survival disadvantage for astrocytoma grade IV, but a survival benefit for astrocytoma grade I-II was observed which could be due to exposure-related tumour symptoms leading to earlier diagnosis and surgery in that patient group

Result Effect Excluded from Statistics

125

Review Reports EXIT

You can page through the found set beside the found set you can also select the Omitted set (or all the records not found. As shown in the drop down you can select all the omitted records. This is very useful when you are looking at exclusion finds where you are searching for a condition OR another condition. Some examples are shown below

Research_Review_V4 (N432)

Found 36 / 728

Quick Find

Article Exposure ARPANSA Category Bradford Hill Criteria

Title Use of mobile and cordless phones

1st Author Hardell

Authors Hardell L, Carlberg M.

Web URL <http://www.ncbi.nlm.nih.gov/pubmed/22981111>

Synopsis Below Record

Aim : Survival of patients after glioma was investigated in a case-control study of mobile phones and cordless phones was investigated in a case-control study of Hardell et al (2000).

Results: For glioma, the use of wireless phones (mobile and cordless phones) gave a hazard ratio (HR) = 1.1 (95% confidence interval, CI = 0.9-1.2), with > 10-year latency HR = 1.2 (95% CI = 1.002-1.5, p trend = 0.02). For astrocytoma grade I-II (low-grade), the results were, HR = 0.5 (95% CI = 0.3-0.9) and for astrocytoma grade IV (glioblastoma), HR = 1.1 (95% CI = 0.95-1.4), with > 10 year latency HR = 1.3 (95% CI = 1.03-1.7). In the highest tertile (> 426 h) of cumulative use, HR = 1.2 (95% CI = 0.95-1.5) was found for glioblastoma. The results were similar for mobile and cordless phones.

Conclusion : Decreased survival of glioma cases with long-term and high cumulative use of wireless phones was found. A survival disadvantage for astrocytoma grade IV, but a survival benefit for astrocytoma grade I-II was observed which could be due to exposure-related tumour symptoms leading to earlier diagnosis and surgery in that patient group

Result Effect Excluded from Statistics

125

Review Reports EXIT

Omitted 692 Found 36

728 Total Records

1 / 692 Unsorted

Show All Records

Show Omitted Only

Omit Record

Example 1. Select all the epidemiological studies that show effect AND have brain tumours in the effect.

Step 1. Start by showing all records on the drop down search

The screenshot shows a web-based research review application. At the top, a browser window displays the URL `n432.fmphost.com`. Below the browser, a navigation bar includes links for Google, EME energy, AFL and Kayaks, News, Radio, Travel, Football - Soccer, Weather, and Banks and Super. The main interface is titled "Research_Review_V4 (N432)". A search bar shows "75" records, with a "Total 728" indicator. A modal window is open in the center, displaying "Omitted 0" and "Found 728". It also shows "728 Total Records" and "75 / 728 Unsorted". The modal has three options: "Show All Records", "Show Omitted Only", and "Omit Record". The background interface shows a record for a study titled "Use of mobile and cordless phones and the risk of glioma and brain tumors". The record includes fields for Title, 1st Author (Hardell), Authors (Hardell L, Carlberg M.), Web URL (http://www.ncbi.nlm.nih.gov/pubmed/22981111), and a Synopsis. The synopsis includes the Aim, Results, and Conclusion. The Results section states: "For glioma, the use of wireless phones (mobile and cordless phones) gave a hazard ratio (HR) = 1.1 (95% confidence interval, CI = 0.9-1.2), with > 10-year latency HR = 1.2 (95% CI = 1.002-1.5, p trend = 0.02). For astrocytoma grade I-II (low-grade), the results were, HR = 0.5 (95% CI = 0.3-0.9) and for astrocytoma grade IV (glioblastoma), HR = 1.1 (95% CI = 0.95-1.4), with > 10 year latency HR = 1.3 (95% CI = 1.03-1.7). In the highest tertile (> 426 h) of cumulative use, HR = 1.2 (95% CI = 0.95-1.5) was found for glioblastoma. The results were similar for mobile and cordless phones." The Conclusion states: "Decreased survival of glioma cases with long-term and high cumulative use of wireless phones was found. A survival disadvantage for astrocytoma grade IV, but a survival benefit for astrocytoma grade I-II was observed which could be due to exposure-related tumour symptoms leading to earlier diagnosis and surgery in that patient group". At the bottom, there is a "Result" dropdown set to "Effect", an "Excluded from Statistics" checkbox, and buttons for "Review", "Reports", and "EXIT".

Step 2 Enter Find search and select from the main screen

Result ==Effect (== means match entire field) ensures only the field with Effect is select and other drop down items in the list like “No Effect” are excluded. Also tick the radio-button <n> in the “Exclude from Statistics” so you only include those studies with data available and these are not reviews of other researches data.

The screenshot shows a web browser window with the address bar displaying 'n432.fmphost.com'. The browser's address bar and tabs are visible at the top. Below the browser window, there is a navigation bar with several tabs: 'Article', 'Exposure', 'ARPANSA Categories', 'Effects Categories', 'Study Statistics', and 'Bradford Hill Criteria'. The 'Article' tab is currently selected. The main content area contains several input fields: 'Title', '1st Author', 'Authors', and 'Web URL'. There is a button labeled 'Check for other publications by Main Author' next to the '1st Author' field. Below these fields, there is a section titled 'Synopsis Below' with a large text area for entering the synopsis. To the right of the synopsis area, there are fields for 'Record Added by' and 'Date Published'. At the bottom of the form, there is a 'Result' dropdown menu set to '==Effect', a radio button labeled 'n' under the heading 'Excluded from Statistics', and three buttons: 'Review', 'Reports', and 'EXIT'.

Step 3. On the ARPANSA categories screen check the radio button <y> for the Epidemiological field. You can also select those studies with prospective design if you wish and exclude short-term studies.

Article Exposure **ARPANSA Categories** Effects Categories Study Statistics Bradford Hill Criteria

InVivo ☐ n ☐ y The exposure of living cells (or other components of an organism) outside the human or animal (in vitro).

InVivo ☐ n ☐ y The exposure of living animals (in vivo). In either case, one can look for increases in disease, for changes in physiology, or for subtle biochemical or other changes than might help predict possible harmful effects on humans or the environment.

Animal Study ☐ n ☐ y

Dosimetry ☐ n ☐ y The science of radiofrequency dosimetry provides the link between the external and internal electric and magnetic fields and radiation, and the deposition of energy within the living cells and other structures of the human body.

Human Provocation ☐ n ☐ y Deliberately expose human volunteers under controlled circumstances in what are termed human provocation studies. Ethical and practical considerations generally limit these studies to short-term (acute) exposures, effects such as changes to physiology or perceptions by the subject.

Epidemiology ☒ n ☒ y Epidemiology provides a means of examining the incidence of human disease in real-life situations. This area of research hopes to link increases in disease to a particular chemical, life-style or agent such as RF electromagnetic fields. However, because the exposures are not controlled as in a laboratory study, the results can be difficult to interpret.

Prospective Design ☒ n ☒ y

ARPANSA Source

Funding Source

Step 4. You can select the “Effects Categories” screen by selection the TAB at the top on the main screen. You can check the radio button to <y> at the top right hand corner of the screen tagged as <Brain Tumour>

Research_Review_V4 (N432)

Perform Cancel

Article Exposure ARPANSA Categories **Effects Categories** Study Statistics Bradford Hill Criteria

Auditory dysfunction (AD)	<input type="radio"/> n <input type="radio"/> y	Apoptosis (Cell Death) (AP)	<input type="radio"/> n <input type="radio"/> y	Brain Tumours (BT)	<input checked="" type="radio"/> n <input checked="" type="radio"/> y
Blood Brain Barrier Permeability Changes (BB)	<input type="radio"/> n <input type="radio"/> y	Breast Cancer (BC)	<input type="radio"/> n <input type="radio"/> y	Cellular Stress (CS)	<input type="radio"/> n <input type="radio"/> y
Brain Developmental Issues/Changes/Neurological degeneration (BD)	<input type="radio"/> n <input type="radio"/> y	Biochemical changes (BI)	<input type="radio"/> n <input type="radio"/> y	EEG changes (EG)	<input type="radio"/> n <input type="radio"/> y
Behavioural Modification / Cognitive Function Impairment (BM)	<input type="radio"/> n <input type="radio"/> y	Cell Irregularities/Cell Damage /Morphological changes (CI)	<input type="radio"/> n <input type="radio"/> y	Effects Mitochondria (EM)	<input type="radio"/> n <input type="radio"/> y
Calcium Influx/Efflux (CA)	<input type="radio"/> n <input type="radio"/> y	Fatigue (FA)	<input type="radio"/> n <input type="radio"/> y	Altered Enzyme Activity / Protein Damage / Altered Protein Levels (EA)	<input type="radio"/> n <input type="radio"/> y
Circadian Rhythm Disruption (CR)	<input type="radio"/> n <input type="radio"/> y	Altered Gene Expression (GE)	<input type="radio"/> n <input type="radio"/> y	Headaches (HA)	<input type="radio"/> n <input type="radio"/> y
DNA Damage/Mutagenic/ Genotoxic (DD)	<input type="radio"/> n <input type="radio"/> y	Altered Glucose Metabolism (GM)	<input type="radio"/> n <input type="radio"/> y	Inflammation (IN)	<input type="radio"/> n <input type="radio"/> y
Endocrine / Serotonin / Melatonin / Hormone effects/Immune System (EN)	<input type="radio"/> n <input type="radio"/> y	Heart Rate Variability (HR)	<input type="radio"/> n <input type="radio"/> y	Insomnia (IS)	<input type="radio"/> n <input type="radio"/> y
Miscarriage/Spontaneous Abortion(pregnancy) (MC)	<input type="radio"/> n <input type="radio"/> y	Mast Cell Degranulation Chronic illness ((MD)	<input type="radio"/> n <input type="radio"/> y	Impaired /Reduced Healing Bone Density changes (RH)	<input type="radio"/> n <input type="radio"/> y
Memory Retention/Impairment issues (MR)	<input type="radio"/> n <input type="radio"/> y	Oxidative Stress / ROS /Super Oxides, Free Radicals, Lipid Peroxidation (OS)	<input type="radio"/> n <input type="radio"/> y	Speech impairment (SI)	<input type="radio"/> n <input type="radio"/> y
Sperm Effects / Viability/Motility/Damage / Testicular morphology changes (SE)	<input type="radio"/> n <input type="radio"/> y	Sleep Performance Issues (SP)	<input type="radio"/> n <input type="radio"/> y	Tinnitus and Hearing loss(TN)	<input type="radio"/> n <input type="radio"/> y
Tumour Promoter (TP)	<input type="radio"/> n <input type="radio"/> y	Glioma	<input type="radio"/> n <input type="radio"/> y	Meningioma	<input type="radio"/> n <input type="radio"/> y
Acoustic Neuroma	<input type="radio"/> n <input type="radio"/> y	Ocular effects	<input type="radio"/> n <input type="radio"/> y	Autism	<input type="radio"/> n <input type="radio"/> y
Leukemia	<input type="radio"/> n <input type="radio"/> y	Other Effects	<input type="text"/>		

Find Summary Totals

Step 5 : The last step is to perform a find and select all those records that meet the selected criteria with an AND search. You will not you have found 23 records out of 728 that meet the criteria

Result <Effect> AND Exclude from Statistic <n> AND Epidemiological study <y> AND Prospective Design <y> AND Brain Tumours <y>

The screenshot shows a web browser window with the address bar displaying 'n432.fmphost.com'. Below the browser window is a navigation bar with tabs: 'Article', 'Exposure', 'ARPANSA Categories', 'Effects Categories', 'Study Statistics', and 'Bradford Hill Criteria'. The 'Article' tab is selected. The record details are as follows:

- Title:** Mobile phone radiation causes brain tumours and should be classified as a probable human carcinogen (2A).
- 1st Author:** Morgan
- Authors:** Morgan LL, Miller AB, Sasco A, Davis DL.
- Web URL:** <http://www.ncbi.nlm.nih.gov/pubmed/25738972?dopt=Abstract>
- Synopsis Below:** Record Added by Steve Weller, Date Published 25/02/2015. The synopsis text reads: "The CERENAT finding of increased risk of glioma is consistent with studies that evaluated use of mobile phones for a decade or longer and corroborate those that have shown a risk of meningioma from mobile phone use. In CERENAT, exposure to RF-EMF from digitally enhanced cordless telephones (DECTs), used by over half the population of France during the period of this study, was not evaluated. If exposures to DECT phones could have been taken into account, the risks of glioma from mobile phone use in CERENAT are likely to be higher than published. We conclude that radiofrequency fields should be classified as a Group 2A 'probable human carcinogen' under the criteria used by the International Agency for Research on Cancer (Lyon, France). Additional data should be gathered on exposures to mobile and cordless phones, other WTDs, mobile phone base stations and Wi-Fi routers to evaluate their impact on public health".

At the bottom of the interface, there is a 'Result' dropdown menu set to 'Effect' and an 'Excluded from' dropdown menu set to 'Statistic'.

You can now page through the records.

Example 2. Select all the studies that show effects either in the Breast Cancer field OR show effect in the Glioma field.

In order to do this research you need to do a found search which is an AND search and look for the Omitted records. So you will find all this records that have a <n> tag in the Glioma and Breast Cancer field as shown below. This might feel wrong but remember we will be finding all the OMITTED records which will mean they must be tag with a <y> being a different state to the Find search.

Step 1. Perform a Find search and tag the fields as shown below.

Research_Review_V4 (N432)

Perform Cancel

Article Exposure ARPANSA Categories **Effects Categories** Study Statistics Bradford Hill Criteria

Auditory dysfunction (AD)	<input type="radio"/> n <input type="radio"/> y	Apoptosis (Cell Death) (AP)	<input type="radio"/> n <input type="radio"/> y	Brain Tumours (BT)	<input type="radio"/> n <input type="radio"/> y
Blood Brain Barrier Permeability Changes (BB)	<input type="radio"/> n <input type="radio"/> y	Breast Cancer (BC)	<input checked="" type="radio"/> n <input type="radio"/> y	Cellular Stress (CS)	<input type="radio"/> n <input type="radio"/> y
Brain Developmental Issues/Changes/Neurological degeneration (BD)	<input type="radio"/> n <input type="radio"/> y	Biochemical changes (BI)	<input type="radio"/> n <input type="radio"/> y	EEG changes (EG)	<input type="radio"/> n <input type="radio"/> y
Behavioural Modification / Cognitive Function Impairment (BM)	<input type="radio"/> n <input type="radio"/> y	Cell Irregularities/Cell Damage /Morphological changes (CI)	<input type="radio"/> n <input type="radio"/> y	Effects Mitochondria (EM)	<input type="radio"/> n <input type="radio"/> y
Calcium Influx/Efflux (CA)	<input type="radio"/> n <input type="radio"/> y	Fatigue (FA)	<input type="radio"/> n <input type="radio"/> y	Altered Enzyme Activity / Protein Damage / Altered Protein Levels (EA)	<input type="radio"/> n <input type="radio"/> y
Circadian Rhythm Disruption (CR)	<input type="radio"/> n <input type="radio"/> y	Altered Gene Expression (GE)	<input type="radio"/> n <input type="radio"/> y	Headaches (HA)	<input type="radio"/> n <input type="radio"/> y
DNA Damage/Mutagenic/Genotoxic (DD)	<input type="radio"/> n <input type="radio"/> y	Altered Glucose Metabolism (GM)	<input type="radio"/> n <input type="radio"/> y	Inflammation (IN)	<input type="radio"/> n <input type="radio"/> y
Endocrine / Serotonin / Melatonin / Hormone effects/Immune System (EN)	<input type="radio"/> n <input type="radio"/> y	Heart Rate Variability (HR)	<input type="radio"/> n <input type="radio"/> y	Insomnia (IS)	<input type="radio"/> n <input type="radio"/> y
Miscarriage/Spontaneous Abortion(pregnancy) (MC)	<input type="radio"/> n <input type="radio"/> y	Mast Cell Degranulation Chronic illness ((MD)	<input type="radio"/> n <input type="radio"/> y	Impaired /Reduced Healing Bone Density changes (RH)	<input type="radio"/> n <input type="radio"/> y
Memory Retention/Impairment issues (MR)	<input type="radio"/> n <input type="radio"/> y	Oxidative Stress / ROS /Super Oxides, Free Radicals, Lipid Peroxidation (OS)	<input type="radio"/> n <input type="radio"/> y	Speech impairment (SI)	<input type="radio"/> n <input type="radio"/> y
Sperm Effects / Viability/Motility/Damage / Testicular morphology changes (SE)	<input type="radio"/> n <input type="radio"/> y	Sleep Performance Issues (SP)	<input type="radio"/> n <input type="radio"/> y	Tinnitus and Hearing loss(TN)	<input type="radio"/> n <input type="radio"/> y
Tumour Promoter (TP)	<input type="radio"/> n <input type="radio"/> y	Glioma	<input checked="" type="radio"/> n <input type="radio"/> y	Meningioma	<input type="radio"/> n <input type="radio"/> y
Acoustic Neuroma	<input type="radio"/> n <input type="radio"/> y	Ocular effects	<input type="radio"/> n <input type="radio"/> y	Autism	<input type="radio"/> n <input type="radio"/> y
Leukemia	<input type="radio"/> n <input type="radio"/> y	Other Effects	<input type="text"/>		

Find Summary Totals

Step 2. Perform the find and as show below. The search has selected 711 records but 17 have been omitted. It's the omitted records that are the relevant records. These records will have either a <y> in the breast cancer or a <y> in the Glioma field. So select the Show Omitted Only.

The screenshot shows a web application interface for a research review. At the top, there's a navigation bar with various menu items like Google, EME energy, AFL and Kayaks, News, Radio, Travel, Football - Soccer, Weather, Banks and Super. Below this is a search bar with the text 'Research_Review_V4 (N432)'. A modal window is open in the center, displaying a circular progress indicator and the text 'Omitted 17' and 'Found 711'. Below this, it says '728 Total Records' and '1 / 711 Unsorted'. There are three buttons: 'Show All Records', 'Show Omitted Only', and 'Omit Record'. The background shows a table of records with various health conditions and checkboxes for 'n' and 'y'.

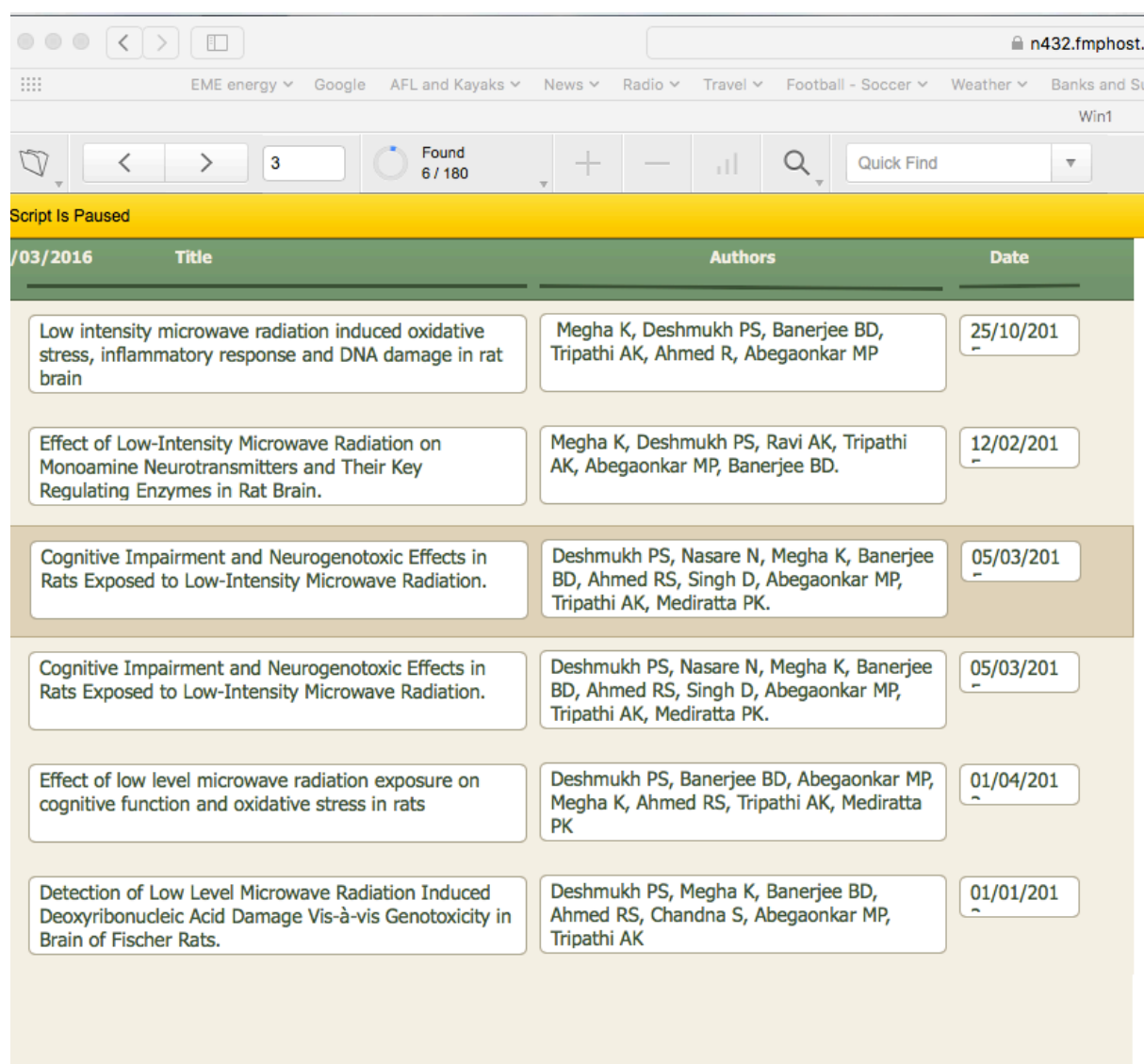
Article	Exposure	ARPANSA Category	Bradford Hill Criteria
Auditory dysfunction (AD)			<input type="radio"/> n <input type="radio"/> y
Blood Brain Barrier Permeability Changes (BB)			<input type="radio"/> n <input type="radio"/> y
Brain Developmental Issues/Changes/Neurological degeneration (BD)			<input type="radio"/> n <input type="radio"/> y
Behavioural Modification / Cognitive Function Impairment (BM)			<input type="radio"/> n <input type="radio"/> y
Calcium Influx/Efflux (CA)			<input type="radio"/> n <input type="radio"/> y
Circadian Rhythm Disruption (CR)			<input type="radio"/> n <input type="radio"/> y
DNA Damage/Mutagenic/Genotoxic (DD)			<input type="radio"/> n <input type="radio"/> y
Endocrine / Serotonin / Melatonin / Hormone effects/Immune System (EN)			<input type="radio"/> n <input type="radio"/> y
Miscarriage/Spontaneous Abortion(pregnancy) (MC)			<input type="radio"/> n <input type="radio"/> y
Memory Retention/Impairment issues (MR)			<input type="radio"/> n <input type="radio"/> y
Sperm Effects / Viability/Motility/Damage / Testicular morphology changes (SE)			<input type="radio"/> n <input type="radio"/> y
Tumour Promoter (TP)			<input type="radio"/> n <input type="radio"/> y
Acoustic Neuroma			<input type="radio"/> n <input type="radio"/> y
Leukemia			<input type="radio"/> n <input type="radio"/> y
Heart Rate Variability (HR)			<input type="radio"/> n <input type="radio"/> y
Mast Cell Degranulation Chronic illness ((MD)			<input type="radio"/> n <input type="radio"/> y
Oxidative Stress / ROS /Super Oxides, Free Radicals, Lipid Peroxidation (OS)			<input type="radio"/> n <input type="radio"/> y
Sleep Performance Issues (SP)			<input type="radio"/> n <input type="radio"/> y
Glioma			<input type="radio"/> n <input type="radio"/> y
Ocular effects			<input type="radio"/> n <input type="radio"/> y
Other Effects			<input type="radio"/> n <input type="radio"/> y
In Tumours (BT)			<input type="radio"/> n <input type="radio"/> y
Molecular Stress (CS)			<input type="radio"/> n <input type="radio"/> y
Changes (EG)			<input type="radio"/> n <input type="radio"/> y
ffects Mitochondria (EM)			<input type="radio"/> n <input type="radio"/> y
Enzyme Activity / Protein Age / Altered Protein Levels (EA)			<input type="radio"/> n <input type="radio"/> y
daches (HA)			<input type="radio"/> n <input type="radio"/> y
Amation (IN)			<input type="radio"/> n <input type="radio"/> y
Insomnia (IS)			<input type="radio"/> n <input type="radio"/> y
Impaired /Reduced Healing Bone Density changes (RH)			<input type="radio"/> n <input type="radio"/> y
Speech impairment (SI)			<input type="radio"/> n <input type="radio"/> y
Tinnitus and Hearing loss(TN)			<input type="radio"/> n <input type="radio"/> y
Meningioma			<input type="radio"/> n <input type="radio"/> y
Autism			<input type="radio"/> n <input type="radio"/> y

50 Find Summary Totals

3. Alternative Method of Searching for Duplicates In Data Base

To check if there are Duplicates you can do a search of the Main Author by depressing the button < Check for other publications by Main Author>.

This will do a search of all the publications with the Main Authors surname. The following summary screen is a search for surname MEGHA. The search has returned 6 records from the total number of record. You can check to see if the title is listed twice and in this example the record has been entered twice. The publication on Cognitive Impairment is repeated twice



Title	Authors	Date
Low intensity microwave radiation induced oxidative stress, inflammatory response and DNA damage in rat brain	Megha K, Deshmukh PS, Banerjee BD, Tripathi AK, Ahmed R, Abegaonkar MP	25/10/201
Effect of Low-Intensity Microwave Radiation on Monoamine Neurotransmitters and Their Key Regulating Enzymes in Rat Brain.	Megha K, Deshmukh PS, Ravi AK, Tripathi AK, Abegaonkar MP, Banerjee BD.	12/02/201
Cognitive Impairment and Neurogenotoxic Effects in Rats Exposed to Low-Intensity Microwave Radiation.	Deshmukh PS, Nasare N, Megha K, Banerjee BD, Ahmed RS, Singh D, Abegaonkar MP, Tripathi AK, Mediratta PK.	05/03/201
Cognitive Impairment and Neurogenotoxic Effects in Rats Exposed to Low-Intensity Microwave Radiation.	Deshmukh PS, Nasare N, Megha K, Banerjee BD, Ahmed RS, Singh D, Abegaonkar MP, Tripathi AK, Mediratta PK.	05/03/201
Effect of low level microwave radiation exposure on cognitive function and oxidative stress in rats	Deshmukh PS, Banerjee BD, Abegaonkar MP, Megha K, Ahmed RS, Tripathi AK, Mediratta PK	01/04/201
Detection of Low Level Microwave Radiation Induced Deoxyribonucleic Acid Damage Vis-à-vis Genotoxicity in Brain of Fischer Rats.	Deshmukh PS, Megha K, Banerjee BD, Ahmed RS, Chandna S, Abegaonkar MP, Tripathi AK	01/01/201

Note: The yellow bar the script is paused at the stage. The continue button is on the far right of this yellow bar. This will take you back to the main screen.