MolecularMatch Clinical Trials 2018 Update

In 2008, the World Medical Association's Declaration of Helsinki stated that, "Every clinical trial must be registered in a publicly accessible database before recruitment of the first subject." This spurred many countries to start their own clinical trial registries, or to conform to the standards of other major registries like the US's ClinicalTrials.gov. Many organizations now choose to list their trials in a major registry, their home registry, or both. At MolecularMatch we bring in all trials, and merge it into a consistent format, eliminating duplicates across registries and fill in missing data. We keep this data updated so that we can be sure to contain the majority of registered trials in a format for our algorithms to process, and for our users to distribute information to medical practices around the globe.

Public Registries Incorporated into MM Database

Registry Code	Registry Name	Count
CTGOV	ClinicalTrials.gov	252,112
UMIN	University Hospital Medical Information Network (Japan)	5,179
ANZCTR	Australia/New Zealand Clinical Trials Registry	4,979
ChiCTR	Chinese Clinical Trials Registry	4,031
DRKS	German Clinical Trials Registry	3,165
IRCT	Iranian Registry of Clinical Trials	2,953
EUCTR	European Clinical Trials Registry	1,965
ISRCTN	International Standard Registry of Clinical Trials	1,855
CTRI	Indian Clinical Trials Registry	1,456
NTR	Netherlands Trial Registry	773
CRIS	Clinical Research Information Service (Korea)	476
TCTR	Thai Clinical Trials Registry	422
REBEC	Brazilian Clinical Trials Registry	374

DACTD	Pan African Clinical Trials Registry	474
PACTR	174	
JapicCTI	Japan Pharmaceutical Information Center - Clinical Trials Information	115
REPEC	Peruvian Clinical Trial Registry	70
JMACCT	Japan Medical Association - Center for Clinical Trials	49
SLCTR	Sri Lanka Clinical Trials Registry	31
RPCEC	Cuban Public Registry of Clinical Trials	8

Note that some are underutilized; as there are over 6,000 clinical trials with a site or contact in Brazil (mostly in ClinicalTrials.gov), but only 371 trials in Brazil's registry REBEC. Likewise, middle east countries may register on Iran's well supported registry IRCT.

Additional registries worth integrating are: Switzerland's **KOFAM**, the US's **NCI** registry, Spain's **REES** registry, and industry sponsored and local institutional databases.

Registry Merging

Many trials are listed on more than one registry, and we handle that by registry priority and secondary identification. For example, if a trial coming in from UMIN has a secondary identifier that is a NCT. No. from clinicaltrials.gov, this trial will not make into the final trial table. Instead, a link between the two are created and it is skipped.

Missing links are also found. If a trial comes from UMIN, but has a ANZCTR ID on it, it will get skipped in favor of the higher priority ANZCTR. But if that ANZCTR has a link to clinicaltrials.gov, both the UMIN and ANZCTR will be skipped. Missing links are recorded in a CTlinks table.

Trials added or updated in last 2 years pulled from native registries.

Registry	Native	After merge	Difference
EUCTR	8511	1871	6640
DRKS	6385	3042	3343
ANZCTR	11793	11648	145

ISRCTN	1877	1843	34
ChiCTR	3866	3863	3
UMIN	5221	5218	3
CRIS	466	464	2
PACTR	178	176	2

Registry priorities for merging

1) ClinicalTrials.Gov 2) DRKS 3) ANZCTR 4) EUCTR 5) All others

World Map of Trials

US data taken out for better viewing of non-US images.

Germany, France lead Europe



China, Japan, Korea lead Asia



Brazil, Argentina lead South America



Turkey, Iran, Egypt lead the Middle East / North Africa region



South Africa, Uganda and Kenya lead



Total Counts - (for countries > 3 trials)



Trial Contacts

Arguably the most important piece of a clinical trial dataset is the contact information. No online service can effectively enroll a patient into a trial because there is too much nuance in eligibility. Patients and their physicians must contact the trial to request enrollment. We're working to make sure all trials have a quality point of contact.

Email Address Domains

Its interesting to see who is registering trials. This is the number of unique emails per domain in our dataset.



Notes

This is a global analysis of all clinical trials. Interesting results can come out of further analysis when you break down trials by disease specifics like cancer type, molecular / genomic factors, geo-location and drug treatments. MolecularMatch has the ability to do these unique analyses because of our strength biomedical NLP based trial characterization.

Registry specific trials can be viewed on our public app or API (http://api.molecularmatch.com):

http://app.molecularmatch.com/search/ANZCTR http://app.molecularmatch.com/search/CTGOV http://app.molecularmatch.com/search/DRKS http://app.molecularmatch.com/search/EUCTR http://app.molecularmatch.com/search/CTRI http://app.molecularmatch.com/search/UMIN http://app.molecularmatch.com/search/RPCEC http://app.molecularmatch.com/search/SLCTR http://app.molecularmatch.com/search/PACTR http://app.molecularmatch.com/search/PACTR http://app.molecularmatch.com/search/TCTR http://app.molecularmatch.com/search/CRIS http://app.molecularmatch.com/search/CRIS http://app.molecularmatch.com/search/NTR

http://app.molecularmatch.com/search/REBEC http://app.molecularmatch.com/search/ChiCTR http://app.molecularmatch.com/search/IRCT

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