

# PA055 Semestral project

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# Exploring the dataset

- **SIDER: Side Effect Resource**

## Information about the download files

File	Size	License
README	3.2 KB	
drug_names.tsv	33.9 KB	
drug_atc.tsv	32.0 KB	

## MedDRA side effects

We used the [MedDRA](#) dictionary to extract side effects from drug labels. The results of this mapping are available under a [Creative Commons Attribution-NonCommercial 4.0 License](#). For commercial use, please contact [biobyte solutions GmbH](#).

File	Size	License
meddra_all_indications.tsv.gz	336.6 KB	
meddra_all_se.tsv.gz	2.3 MB	
meddra_freq.tsv.gz	2.0 MB	
meddra_all_label_indications.tsv.gz	5.6 MB	
meddra_all_label_se.tsv.gz	40.6 MB	
meddra.tsv.gz	1.0 MB	

CID100000085	CID000010917	C0000737		21%	0.21	0.21	LLT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737		21%	0.21	0.21	PT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737		21%	0.21	0.21	PT	C0687713	Gastrointestinal pain
CID100000085	CID000010917	C0000737		5%	0.05	0.05	LLT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737		5%	0.05	0.05	PT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737		5%	0.05	0.05	PT	C0687713	Gastrointestinal pain
CID100000085	CID000010917	C0000737		6%	0.06	0.06	LLT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737		6%	0.06	0.06	PT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737		6%	0.06	0.06	PT	C0687713	Gastrointestinal pain
CID100000085	CID000010917	C0000737		9%	0.09	0.09	LLT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737		9%	0.09	0.09	PT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737		9%	0.09	0.09	PT	C0687713	Gastrointestinal pain
CID100000085	CID000010917	C0000737	placebo	17%	0.17	0.17	LLT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737	placebo	17%	0.17	0.17	PT	C0000737	Abdominal pain
CID100000085	CID000010917	C0000737	placebo	17%	0.17	0.17	PT	C0687713	Gastrointestinal pain
CID100000085	CID000010917	C0002418		3%	0.03	0.03	LLT	C0002418	Amblyopia
CID100000085	CID000010917	C0002418		3%	0.03	0.03	PT	C0002418	Amblyopia
CID100000085	CID000010917	C0002418		6%	0.06	0.06	LLT	C0002418	Amblyopia
CID100000085	CID000010917	C0002418		6%	0.06	0.06	PT	C0002418	Amblyopia
CID100000085	CID000010917	C0002418	placebo	2%	0.02	0.02	LLT	C0002418	Amblyopia
CID100000085	CID000010917	C0002418	placebo	2%	0.02	0.02	PT	C0002418	Amblyopia
CID100000085	CID000010917	C0002871		12%	0.12	0.12	LLT	C0002871	Anaemia
CID100000085	CID000010917	C0002871		12%	0.12	0.12	PT	C0002871	Anaemia
CID100000085	CID000010917	C0002871		3%	0.03	0.03	LLT	C0002871	Anaemia
CID100000085	CID000010917	C0002871		3%	0.03	0.03	PT	C0002871	Anaemia
CID100000085	CID000010917	C0002871		5%	0.05	0.05	LLT	C0002871	Anaemia
CID100000085	CID000010917	C0002871		5%	0.05	0.05	PT	C0002871	Anaemia

	code	placebo	freq_description	freq_lower_bound	freq_upper_bound	effect_description
1	CID100000085		21%	0.21	0.21	Abdominal pain
2	CID100000085		21%	0.21	0.21	Abdominal pain
3	CID100000085		21%	0.21	0.21	Gastrointestinal pain
4	CID100000085		5%	0.05	0.05	Abdominal pain
5	CID100000085		5%	0.05	0.05	Abdominal pain
6	CID100000085		5%	0.05	0.05	Gastrointestinal pain
7	CID100000085		6%	0.06	0.06	Abdominal pain
8	CID100000085		6%	0.06	0.06	Abdominal pain
9	CID100000085		6%	0.06	0.06	Gastrointestinal pain
10	CID100000085		9%	0.09	0.09	Abdominal pain
11	CID100000085		9%	0.09	0.09	Abdominal pain
12	CID100000085		9%	0.09	0.09	Gastrointestinal pain
13	CID100000085	placebo	17%	0.17	0.17	Abdominal pain
14	CID100000085	placebo	17%	0.17	0.17	Abdominal pain
15	CID100000085	placebo	17%	0.17	0.17	Gastrointestinal pain
16	CID100000085		3%	0.03	0.03	Amblyopia
17	CID100000085		3%	0.03	0.03	Amblyopia
18	CID100000085		6%	0.06	0.06	Amblyopia
19	CID100000085		6%	0.06	0.06	Amblyopia
20	CID100000085	placebo	2%	0.02	0.02	Amblyopia
21	CID100000085	placebo	2%	0.02	0.02	Amblyopia
22	CID100000085		12%	0.12	0.12	Anaemia
23	CID100000085		12%	0.12	0.12	Anaemia
24	CID100000085		3%	0.03	0.03	Anaemia
25	CID100000085		3%	0.03	0.03	Anaemia
26	CID100000085		5%	0.05	0.05	Anaemia
27	CID100000085		5%	0.05	0.05	Anaemia

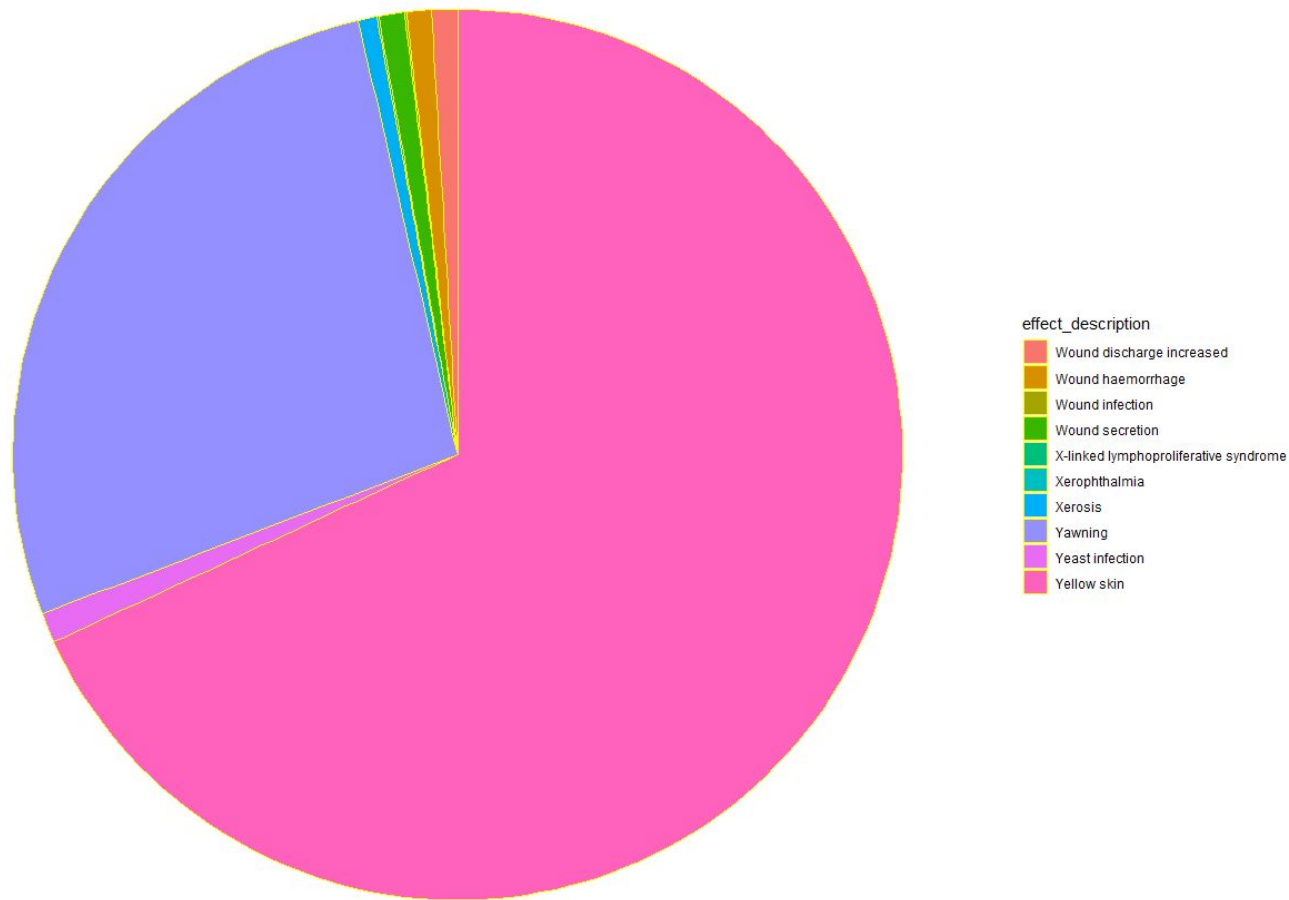
	code	name
1	CID100000085	caritine
2	CID100000119	gamma-aminobutyric
3	CID100000137	5-aminolevulinic
4	CID100000143	leucovorin
5	CID100000146	5-methyltetrahydrofolate
6	CID100000158	PGE2
7	CID100000159	prostacyclin
8	CID100000160	prostaglandin
9	CID100000175	acetate
10	CID100000187	acetylcholine
11	CID100000191	adenosine
12	CID100000206	glucose
13	CID100000214	PGE1
14	CID100000222	ammonia
15	CID100000232	arginine
16	CID100000244	benzyl
17	CID100000247	betaine
18	CID100000271	calcium
19	CID100000297	graphene
20	CID100000298	chloramphenicol
21	CID100000303	bile
22	CID100000305	choline
23	CID100000311	citric
24	CID100000312	chloride
25	CID100000338	salicylate
26	CID100000401	D-cycloserine
27	CID100000444	bupropion

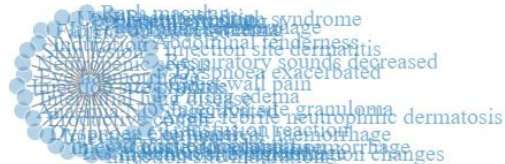
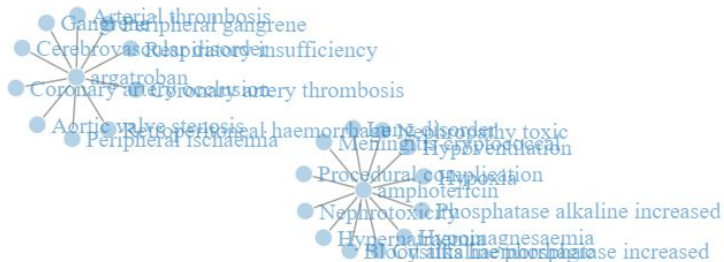
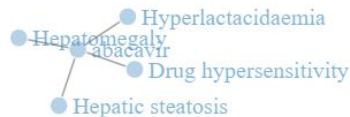


	code	name	placebo	freq_description	freq_lower_bound	freq_upper_bound	effect_description
1	CID100000085	carmitine		21%	0.2100000	0.2100000	Abdominal pain
2	CID100000085	carmitine		21%	0.2100000	0.2100000	Gastrointestinal pain
3	CID100000085	carmitine		3%	0.0300000	0.0300000	Amblyopia
4	CID100000085	carmitine		12%	0.1200000	0.1200000	Anaemia
5	CID100000085	carmitine		3%	0.0300000	0.0300000	Anorexia
6	CID100000085	carmitine		3%	0.0300000	0.0300000	Decreased appetite
7	CID100000085	carmitine		1%	0.0100000	0.0100000	Anxiety
8	CID100000085	carmitine		2%	0.0200000	0.0200000	Arrhythmia
9	CID100000085	carmitine		12%	0.1200000	0.1200000	Asthenia
10	CID100000085	carmitine		2%	0.0200000	0.0200000	Atrial fibrillation
11	CID100000085	carmitine		6%	0.0600000	0.0600000	Back pain
12	CID100000085	carmitine		3%	0.0300000	0.0300000	Bronchitis
13	CID100000085	carmitine		3%	0.0300000	0.0300000	Cardiovascular disorder
14	CID100000085	carmitine		12%	0.1200000	0.1200000	Chest pain
15	CID100000085	carmitine		10%	0.1000000	0.1000000	Infection
16	CID100000085	carmitine		3%	0.0300000	0.0300000	Constipation
17	CID100000085	carmitine		10%	0.1000000	0.1000000	Cough
18	CID100000085	carmitine		5%	0.0500000	0.0500000	Depression
19	CID100000085	carmitine		10%	0.1000000	0.1000000	Diarrhoea
20	CID100000085	carmitine		10%	0.1000000	0.1000000	Dizziness
21	CID100000085	carmitine		2%	0.0200000	0.0200000	Dysgeusia
22	CID100000085	carmitine		5%	0.0500000	0.0500000	Dyspepsia
23	CID100000085	carmitine		11%	0.1100000	0.1100000	Dyspnoea
24	CID100000085	carmitine		3%	0.0300000	0.0300000	Rash
25	CID100000085	carmitine		3%	0.0300000	0.0300000	Dermatitis
26	CID100000085	carmitine		3%	0.0300000	0.0300000	Eye disorder
27	CID100000085	carmitine		12%	0.1200000	0.1200000	Body temperature increased

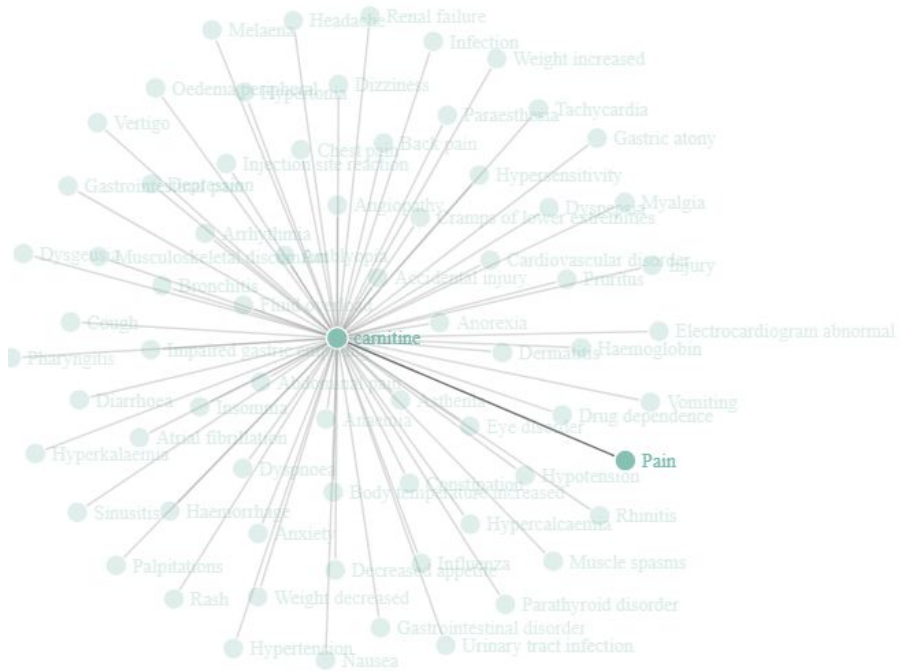
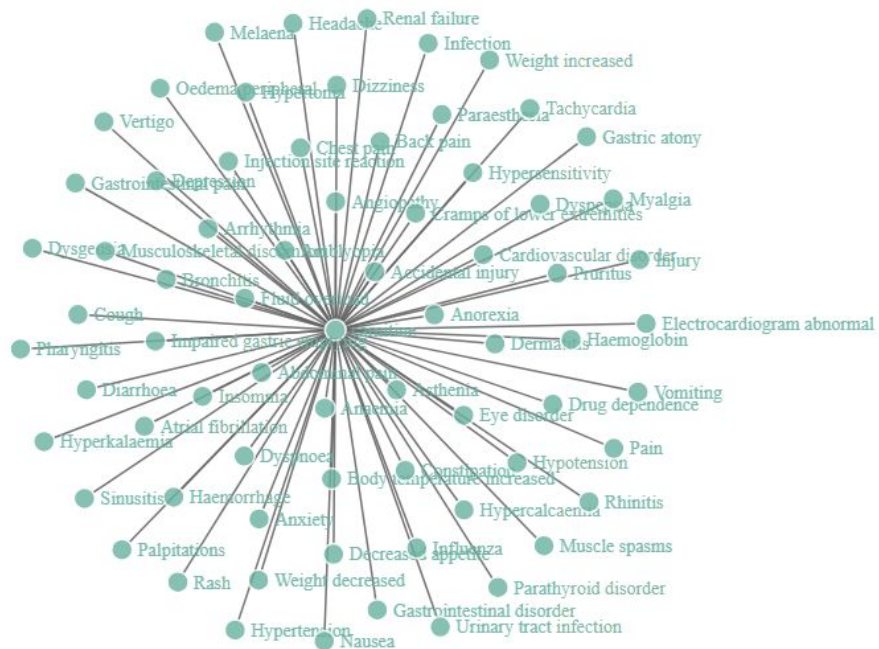
# Visualization

- RStudio

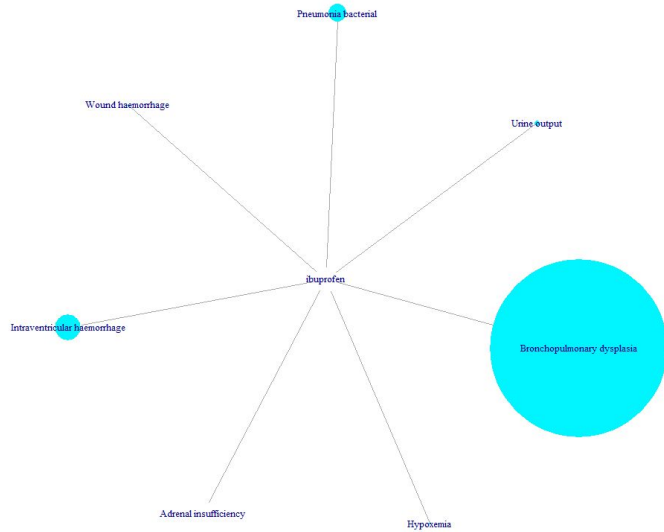
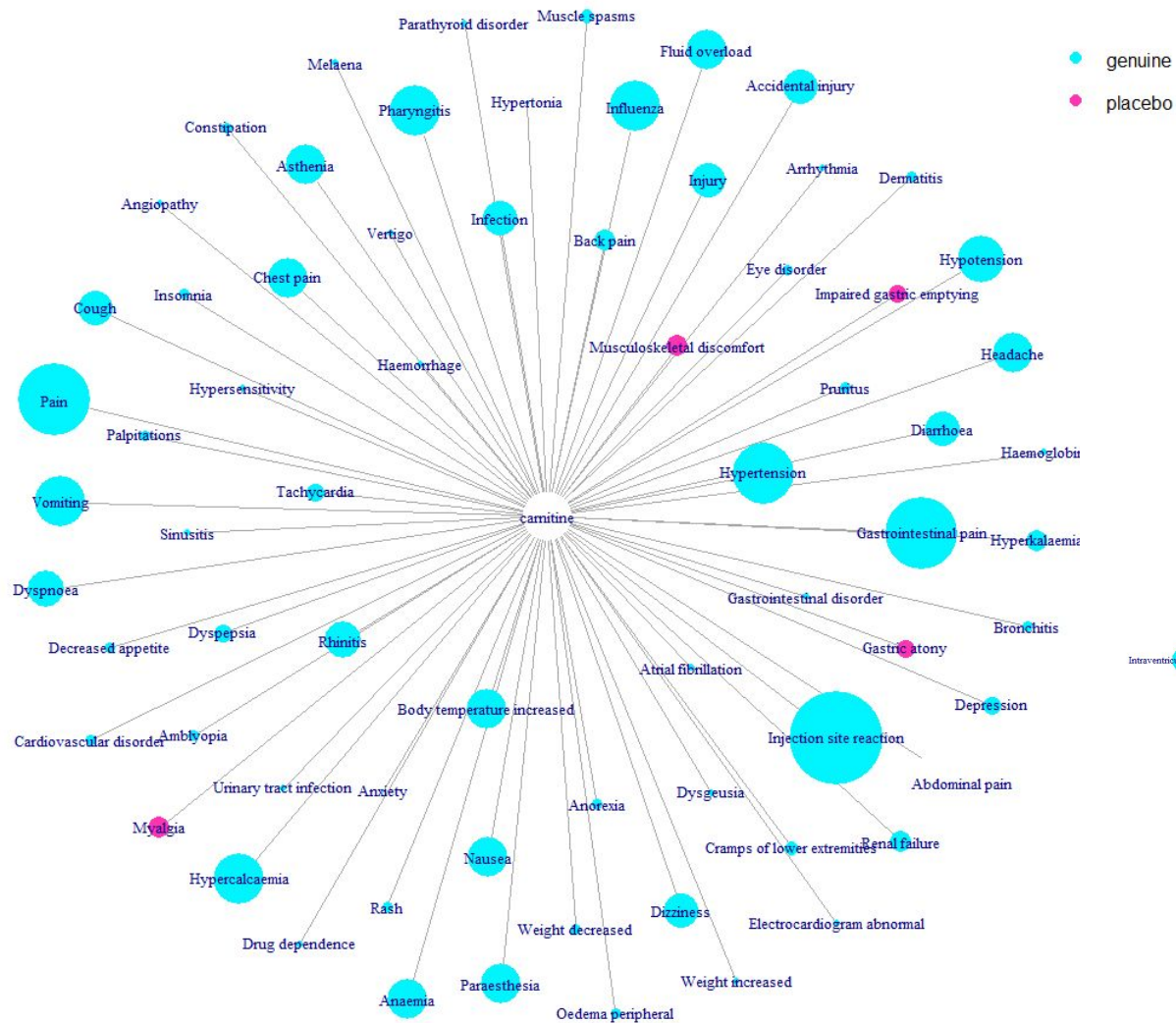




```
library(networkD3)
```







```
library(igraph)
```

# Sources

<https://www.r-graph-gallery.com/network.html>

<http://sideeffects.embl.de/download/>

<https://www.nceas.ucsb.edu/sites/default/files/2020-04/colorPaletteCheatsheet.pdf>

<https://kateto.net/wp-content/uploads/2016/06/Polnet%202016%20R%20Network%20Visualization%20Workshop.pdf>