



Multi-Word Expressions (MWEs) from a biomedical language perspective



Stefan Schulz
stefan.schulz@medunigraz.at

- **Medical University of Graz, Austria**
(Professor for Medical Informatics)
- **Averbis GmbH, Freiburg, Germany**
(Head of Medical Research Projects)

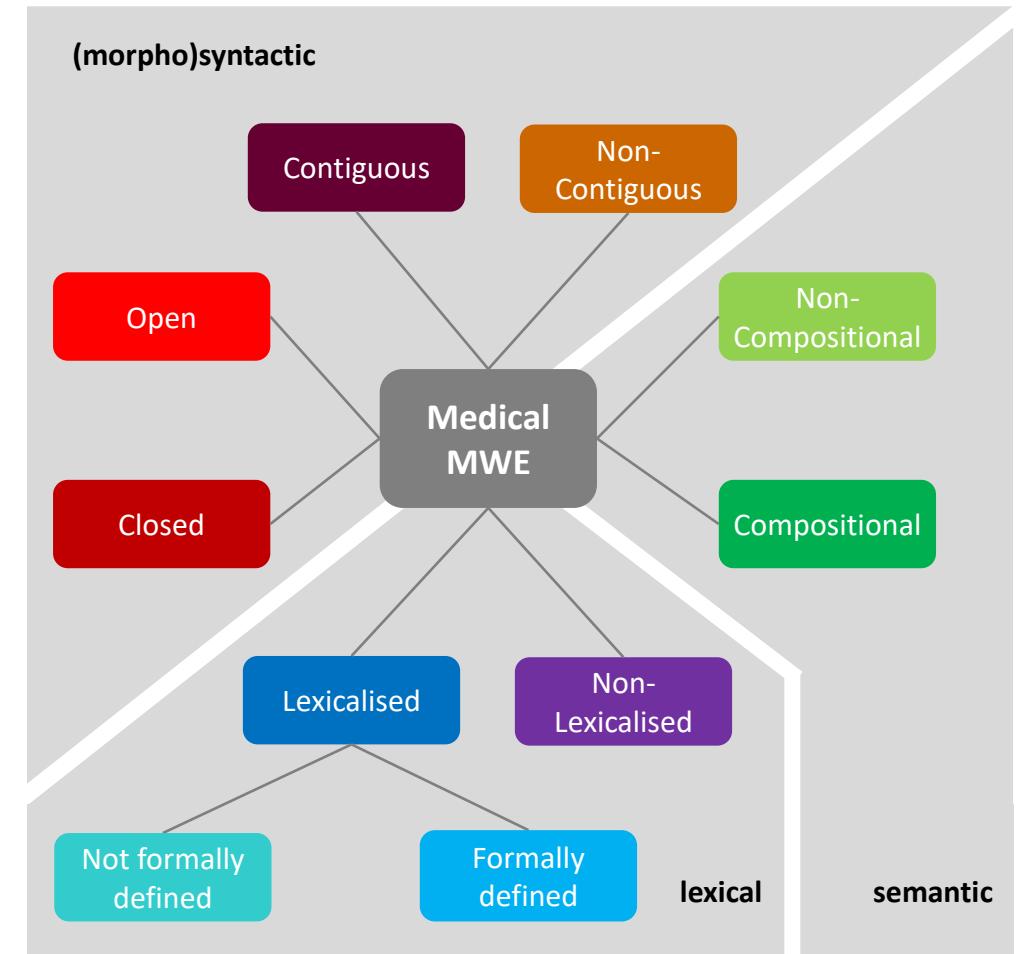


R & D:

- IE from clinical narratives
- Languages: German, English, Portuguese
- Term normalization
- Documentation standards:
 - SNOMED CT (ontology, dictionary)
 - FHIR (information model)
- Topics of research interest:
 - Formal ontology
 - Term composition – concept post-coordination
 - Short forms – disambiguation
 - Text annotation: principles, guidelines, workflows
 - Domain term translations

Mapping MWEs

	Criteria			
	(morpho)syntactic	semantic	lexical	
Diabetes mellitus Type 1	red	dark purple	light green	light blue
E. coli	red	dark purple	light green	light blue
NYHA stage IV	red	dark purple	light green	light blue
Femur fracture	red	dark purple	medium green	light blue
Fentanyl overdose	red	dark purple	medium green	light blue
Vitamin C overdose	red	dark purple	medium green	purple
Toothpaste	red	dark purple	medium green	light blue
Headache	red	dark purple	medium green	light blue
pT2N2M0	red	dark purple	medium green	purple
turned (the ventilator) off	red	orange	light green	light blue



Mapping MWEs

	Criteria		
	(morpho)syntactic	semantic	lexical
Diabetes mellitus Type 1	red	dark purple	light green
E. coli	red	dark purple	light green
NYHA stage IV	red	dark purple	light green
Femur fracture	red	dark purple	medium green
Fentanyl overdose	red	dark purple	medium green
Vitamin C overdose	red	dark purple	purple
Toothpaste	red	dark purple	light green
Headache	red	dark purple	light green
pT2N2M0	red	dark purple	purple
turned (the ventilator) off	red	orange	light green

