![Med Uni Graz logo] **Pioneering Minds**

Prof. Dr. Peter Wolf   Dr. Natalie Bordag

Psoriasis Registry Austria (PsoRA) collection

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25-26.04.2023 Austrian Cohort Research Day Vienna
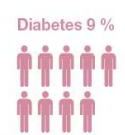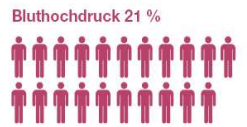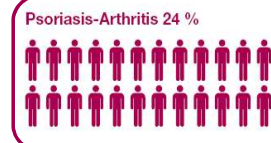

scan contact

Background psoriasis

Psoriasis

▶ ~2-3% prevalence, high direct costs (5500€/a)[1]

▶ systemic disease with mechanistic connection to comorbidities

▶ high psychological strain

▶ many years lost due to disability

▶ game changer: targeted therapy with biologics

Depression 22 %

Psoriasis-Arthritis 24 %

Bluthochdruck 21 %

Hyperlipidämie, Dislipidämie, Hyperglykämie 7 %

Adipositas 12 %

Diabetes 9 %

Kardiovaskuläre Erkrankung 10 %

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[1]Hay et al (2014) JID doi.org/10.1038/jid.2013.446
Mrowietz U et al., 2010, Comorbidity Prevalence in Psoriasis Patients: A Meta-Analysis, Poster (P3300) 68. Annual Meeting of American Dermatology

Aim: Improve psoriasis therapy

PsoRA 2009/2010

▶ started as multi-centric **data collection** via web based database https://psora.medunigraz.at/
  ▶ rights stay with centers/doctors, publications in collaborations
▶ largest database per population (532/1 Mio) with >4500 patients

Biobank collection 2016

▶ started connected single-center **sample collection** (6005_15_Psoriasis) in Graz

Questions[1]

▶ therapy efficacy in clinical routine
▶ therapy response, long-term therapy
▶ therapy changes and side effects, …

[1]Ethikantrages MedUni Graz 21094 ex 2009/2010 (Erstvotum vom 13.2010)

3

Example registry findings

The ecological approach to biologic drugs: survival of the fittest

DOI: 10.1111/bjd.20053

Linked Article: Graier *et al.* Br J Dermatol 2021; https://doi.org/10.1111/bjd.19701

Robert Gniadecki: „*I would argue that this article is a landmark paper, not because it identified another risk factor for drug discontinuation, but because it represents a new methodological approach. I propose to call it 'the ecological approach', which recognizes that the understanding of medical phenomena (diseases and their treatments)*"

Drug Survival of ustekinumab

- Prior to Secukinumab
- After Secukinumab, prior to Ixekizumab
- After Secukinumab, after Ixekizumab
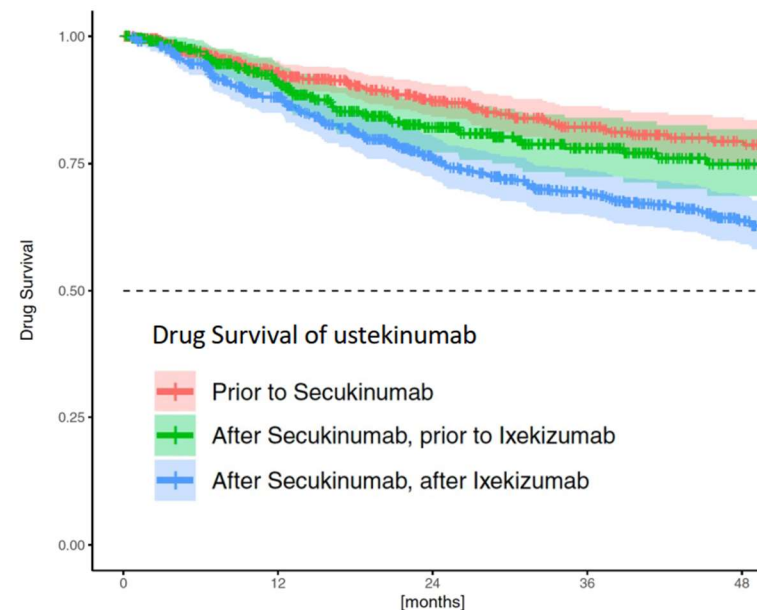
Cohort overview I

observational, retrospective, cross-sectional, ongoing

▶ 731 samples from 559 patients in 7986 aliquots
  ▶ 8x235 µl Serum, 3x580µl EDTA Plasma, 200-300µl buffy coat, 2.5 ml PaxGene stored in BB Graz at -80°C
▶ associated data (Q1/23 manually quality controlled and updated)
  ▶ base demographic, psoriasis specific disease scores and treatment outcome, concomitant medication, concomitant diseases, routine haematology results for 662 samples (including organ function ALAT, ASAT, GGT, LDH, CRK, …)
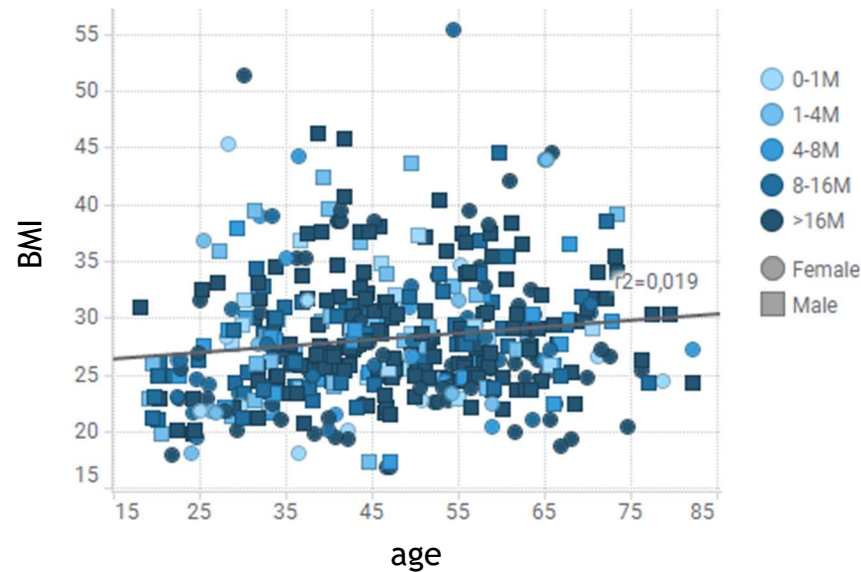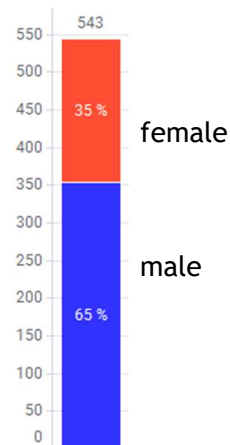
Cohort overview II

▶ cross-sectional: covers 4 important biologics targets

  ▶ Several patients repeatedly sampled at different time points
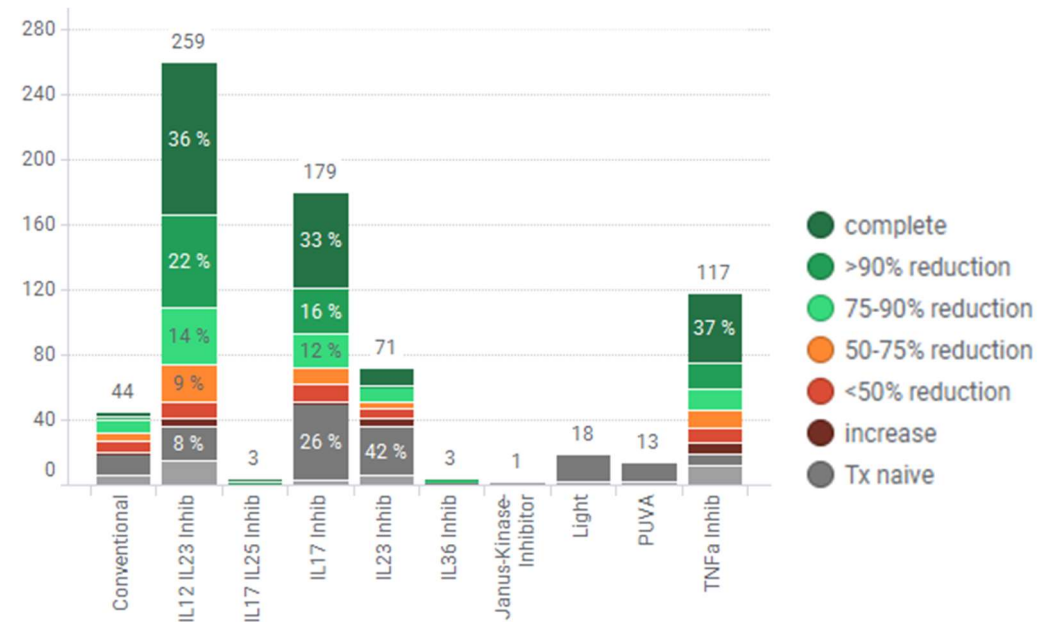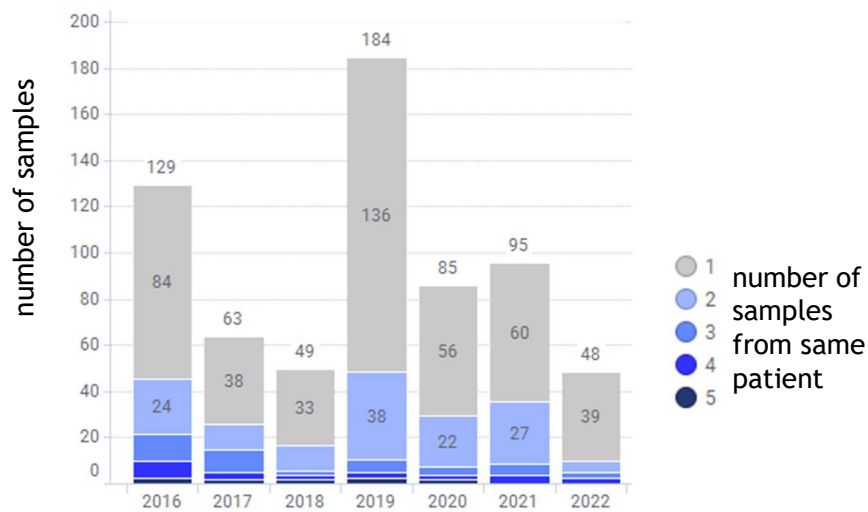
Cohort overview III

▶ 77% patients achieve very good long-term response (>75% PASI reduction)

    ▶ full response often after ~3 months

Treatment response at sampling
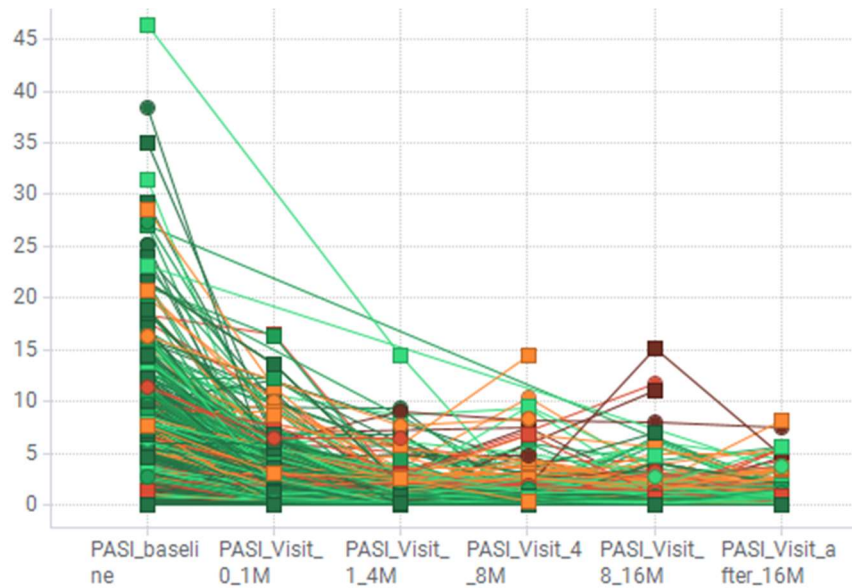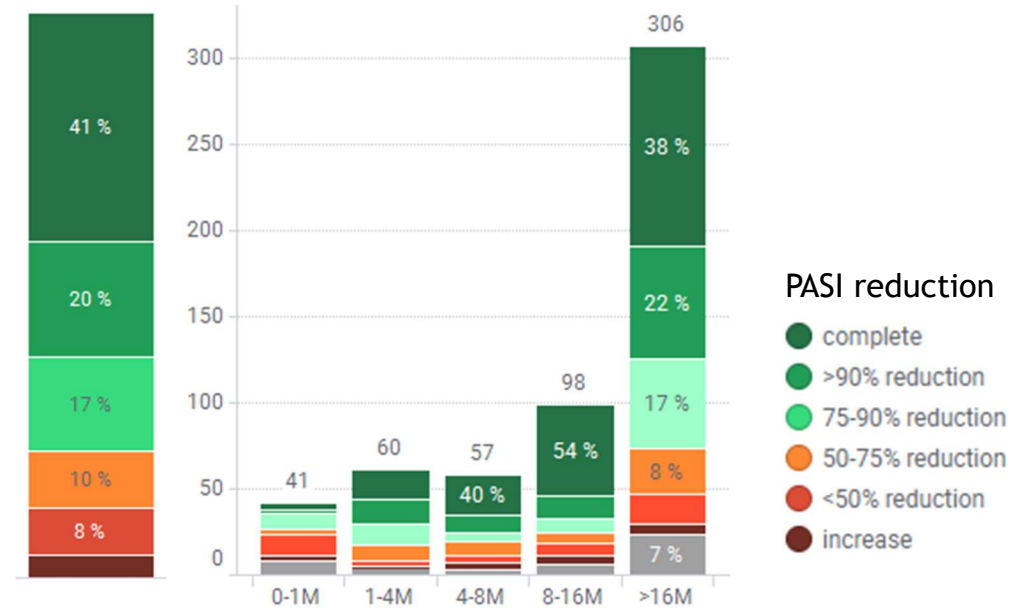
Cohort future needs

IT

▶ streamlined clinical information, easier connection between data sources (CIMCL results, BB Graz samples, clinical history)

▶ merge of legacy database with current/new eCRF solution

▶ connection to other studies/collections at Dermatology (e.g. BioUV, PsoPsych, PsoFamily)

Outlook

▶ expand to include other centers

▶ targeted specific questions with sub-analysis

    ▶ e.g. metabolic responder prediction

    ▶ blood based psoriasis subtype diagnostics
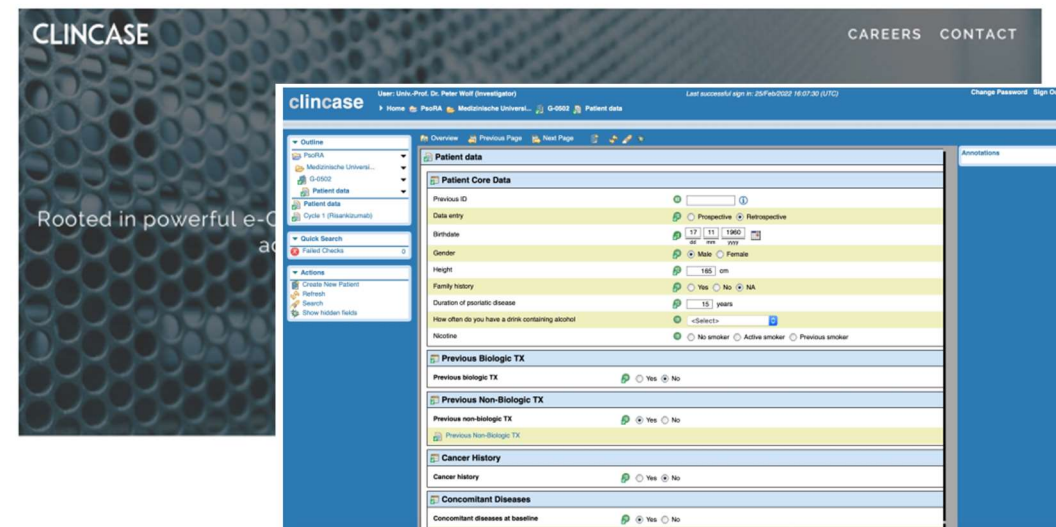
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ucb Inspired by patients. Driven by science.	2021
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Thank you!

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