

## PL02-01 - INDIVIDUALISED THERAPY OF ALCOHOLISM

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Psychotherapy and pharmacotherapy of alcoholism are successful but effect sizes are in the low to moderate range. The heterogeneity of patients entering treatment trials could be one explanation ("one size does not fit all"). Several attempts have been made to subgroup patients for specific treatment approaches ("matching"). A large US study (Project MATCH) tested psychopathological characteristics for treatment allocation and failed to support any of the matching hypotheses. Our new approach includes biological data such as pharmacogenetics and neuroimaging for treatment-patient matching in addition to psychopathology.

In the PREDICT study (Mann et al., 2009) alcohol-dependent patients were randomized to either placebo, naltrexone or acamprosate. Design and questionnaires were identical with the US COMBINE Study (Anton et al., 2006). Overall results will be reported and compared to the COMBINE Study. Extending Project MATCH we used biological (genetics, f-MRI, PET) as well as psychopathological characteristics of patients in order to test their response to naltrexone or acamprosate. Using neuroimaging we confirmed that an increase in brain activity in the ventral striatum is related to time to relapse. We also found support for our hypothesis concerning the rewarding characteristics of alcohol in a certain subgroup of patients. Here f-MRI BOLD response in the ventral striatum predicted a positive naltrexone response. Furthermore,  $\mu$ -opioid receptors in alcoholics and normal controls were assessed using carfentanil PET. Finally a simple psychometric test seems to distinguish between "reward cravers" and "relief cravers". The former seem to respond significantly better to pharmacotherapy. In conclusion the treatment of alcoholism is moving towards a personalised approach. This holds the potential for a significant increase in effect sizes of our treatment trials and thus for better treatment options for our patients. The PREDICT Study was funded by the German Government (BMBF 01EB0410).

### References:

- Anton RF et al. (2006) Combined pharmacotherapies and behavioral interventions for alcohol dependence: the COMBINE study: a randomized controlled trial. *JAMA* 295:2003-2017.
- Mann, K et al. (2009) Searching for responders to acamprosate and naltrexone in alcoholism treatment: rationale and design of the PREDICT study. *Alcohol Clin Exp Res.* 33 (4):674-683.