#### Robert Flisiak

#### PERSPECTIVES OF THE TREATMENT OF HCV INFECTION

Department of Infectious Diseases and Hepatology Medical University of Białystok

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Current standard anti-HCV therapies consist of combination of immune response stimulation by interferons alpha and antiviral effect of ribavirin. New therapeutic strategies target directly structural and non-structural HCV components or affect host-virus interactions. These agents represent the concept of specifically targeted antiviral therapy for HCV (STAT-C). New therapeutic strategies should demonstrate higher efficacy, lower risk of viral resistance, shorter treatment, favourable way of administration, good tolerability and improved adherence of patients. The most advanced studies are not related to STAT-C compounds, but to new form of alpha interferon (albinterferon) and ribavirin derivative (taribavirin). Real STAT-C agents serve as the second line in clinical trials and include first of all NS3 protease inhibitors: telaprevir (VX-950), boceprevir (SCH 503034) and TMC435350 as well as NS5B polymerase inhibitors: R1626, VCH-759, R7128, GSK625433 and GS9190.

There is also promising group of cyclophilin inhibitors affecting host-related factors essential for viral replication, that include Debio 025 and NIM811. Moreover, in early clinical trials are also numerous NS4A inhibitors, NS5A inhibitors, therapeutic vaccines, IRES inhibitors, glucosidase I inhibitors, thiazolides, anti-HCV immunoglobulins, TLR9 agonists and pancaspase inhibitors. For their possible clinical application, we have to wait for years necessary to carry-out clinical trials and fulfill demands of drug registration authorities. According to our current knowledge the future anti-HCV treatment regimens will be combination of drugs with distinct mechanism of action. However, the role of interferons in therapy of chronic hepatitis C probably will remain fundamental in coming years.

## R Flisiak

# PERSPEKTYWY W LECZENIU HCV

## Adres autora:

prof. dr hab. med. Robert Flisiak Zakład Chorób Zakaźnych i Hepatologii Uniwersytet Medyczny w Białymstoku ul. Żurawia 14, 15-540 Białystok, tel./fax +48 85 7416921;

e-mail: flisiakr@poczta.onet.pl;