Aims & Scope:

During the last ten years, FDA approval of nucleoside/tide drugs continues to be exceptionally high. Anti-Hepatitis C blockbuster drug SOVALDI was developed at Pharmasset (where I served as a Director of Chemistry) and it was introduced recently to the market by Gilead. The drug price ($1000 a pill) is still controversial but indicates that antivirals are now serious competitors of anti-cancer drugs in terms of commercial success. In this special issue of CMC the best experts in the nucleoside/tide field will present a view from their own perspectives. The authors’ contributions are dedicated to 75th Birthday of Dr. Robert Vince (which comes in November 2015), an inventor of Abacavir, a blockbuster nucleoside against HIV infections.

Key words: Sovaldi, clofarabine, immucilins, abacavir, antiviral, anticancer, drug discovery, fleximers, sofosbuvir, hepatitis C, immucillins, entecavir, antiviral phosphate cojugates, nucleoside diphosphate prodrugs, antibacterial nucleosides, antivirals with anticancer potential.

Subtopics:

• Flexibility as a Tool for Nucleoside Antiviral Drug Design.
• Nucleoside analogues (old and new) that have not been fully explored for their antiviral potential.
• Design and Application of Transition State Analogues for N-ribosyltransferases.
• Mechanism of Adefovir, Tenofovir and Entecavir Resistance: Molecular Modeling Studies of How A Novel Anti-HBV Agent (FMCA) Can Overcome the Drug Resistance.
• Nucleoside phosphate-Conjugates Come of Age: Catalytic Transformation, Polymerase Recognition and Antiviral Properties.
• Thiarabine, 4’-thio-arabinofuranosyl cytosine. A deoxycytidine analog with excellent anticancer activity.
• Thiarabine, 4’-thio-arabinofuranosyl cytosine. A deoxycytidine analog with excellent anticancer activity.
• Antibacterial Nucleoside Natural Products Inhibiting phospho-MurNAc-pentapeptide translocase.
• An interesting journey from antivirals… to drug candidates with great anticancer potential.