pegylated interferon. The authors discovered a hepatic miRNA expression pattern that exists in chronic HCV patients before combination therapy that is associated with therapeutic outcome. Specifically, the expression levels of three miRNAs (miR-27b, miR-378, miR-422b) in subjects with sustained virologic responders was higher than that in non-responders, whereas the expression level of five miRNAs (miR-34b, miR-145, miR-143, miR-652, and miR-18a) in sustained virologic responders was lower than that in non-responders.

Murakami et al. (61) proposed that miRNA profiling may predict patient drug response before administering specific forms of therapy, thereby forestalling decisions to use treatments that are not likely to be effective.

X. CONCLUDING REMARKS

The material on hepatitis C virus infections further develops a number of topics encountered in the earlier chapters in this textbook relating to oncology. As with cancer, HCV is often a chronic disease, where chronic HCV is characterized by ineffective response by the immune system. As with cancer, HCV can be fatal. With chronic HCV, the only hope for a "cure" may be a liver transplant.

[61] Murakami Y, Tanaka M, Toyoda H, et al. Hepatic microRNA expression is associated with the response to interferon treatment of chronic hepatitis C. *BMC Med Genomics*. 2010;3:48 [13 pages].