of good animal models and formulation for certain patient groups, *e.g.* the pediatric population, are just some of the factors. Furthermore, the target product profile calls for a compound which undoubtedly must have an excellent off-target profile in line with the high-risk pediatric and elderly patient groups. Several compounds discussed in this chapter have come close to meeting all of these challenges and a few compounds have progressed into the clinic but, disappointingly, they have been halted or slowed, sometimes for non-scientific reasons such as an apparent lack of urgency or changes in business strategies. The commercial success of palivizumab (Synagis), a monoclonal antibody approved for prophylactic use in high-risk infants, may reignite interest. The experience gained in early clinical trials with ribavirin (**1**) and more recent trials with RSV604 (**29**) and ALN-RSV01 will also inform the design of future clinical trials that will be more successful. To this end, the introduction of an RSV challenge strain (Memphis 37) should also help pave the way for more straightforward clinical trials, at least for POC. Finally, the motivation to pursue the development of an RSV antiviral could not be higher with an estimated annual infant mortality of 66 000–199 000 in the developing world, significant mortality rates in the geriatric population and the huge burden on the healthcare system for pediatrics in the developed world.

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