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Title:	Article: The C-7 aminomethylpyrrolidine group rescues the activity of a thiofluoroquinolone
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Abstract (or Book Review):	A Mg^{2+}-water bridge between the *C*-3, *C*-4 diketo moiety of fluoroquinolones and the conserved amino acid residues in the GyrA/ParC subunit is critical for the binding of a fluoroquinolone to a topoisomerase-DNA covalent complex. The fluoroquinolone UING-5-249 (249) can bind to the GyrB subunit through its C7-aminomethylpyrrolidine group. This interaction is responsible for enhanced activities of 249 against the wild type and quinolone-resistant mutant topoisomerases. To further evaluate the effects of the 249-GyrB interaction on fluoroquinolone activity, we examined the activities of decarboxy- and thio-249 against DNA gyrase and conducted docking studies using the structure of a gyrase-ciprofloxacin-DNA ternary complex. We found that the 249-GyrB interaction rescued the activity of thio-249 but not that of decarboxy-249. A C7-group that binds more strongly to the GyrB subunit may allow for modifications at the *C*-4 position, leading to a novel compound that is active against the wild type and quinolone-resistant pathogens.