

TOTAL SYNTHESIS OF POLYETHER ANTIBIOTICS  
(SALINOMYCIN AND ISO-LASALOCID-A)

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In connection with our interest in the total synthesis of polyether and macro-  
-lide antibiotics, we have recently initiated synthetic studies on salinomycin  
and iso-lasalocid-A from D-glucose as a chiral starting material and report here  
some successful results.

For salinomycin, the synthesis of the C<sub>1</sub>-C<sub>9</sub> fragment 1, C<sub>10</sub>-C<sub>17</sub> fragment 2 and  
C<sub>21</sub>-C<sub>29</sub> fragment 3 except for the bisspiroketal ring system involving C<sub>18</sub>-C<sub>20</sub>  
allyl alcohol part have been achieved.

For iso-lasalocid-A, we synthesized the C<sub>13</sub>-C<sub>17</sub> fragment 5 and C<sub>18</sub>-C<sub>24</sub> fragment  
6 of iso-lasalocid ketone 4, which was derived from natural iso-lasalocid-A,  
Coupling of 5 and 6 is now in progress.

