

## CHAPTER V

### CONCLUSION

Four halogenated pyrrolo[2,3-*d*]pyrimidine nucleosides were isolated from the tunicate *Didemnum sp.* collected from Phi-Phi Island. The first compound was identified as 4-amino-7-(5'-deoxyribos-1' $\beta$ -yl)-5-iodopyrrolo[2,3-*d*]pyrimidine [42] which was previously isolated from the red alga *Hypnea valentiae*. The second compound was identified as 4-amino-7-(5'-deoxyribos-1' $\beta$ -yl)-5-bromopyrrolo[2,3-*d*]pyrimidine [41], previously reported from the ascidian *Didemnum voeltzkowi*. The third compound, which was first identified as the 1' $\alpha$ -isomer of [42], was structurally revised to 4-amino-7-(5'-deoxyxylos-1' $\beta$ -yl)-5-iodopyrrolo[2,3-*d*]pyrimidine according to NOE spectral data. The last compound was elucidated as a new halogenated pyrrolo[2,3-*d*]pyrimidine nucleosides and named 4-amino-7-(5'-deoxyxylos-1' $\beta$ -yl)-5-bromopyrrolo[2,3-*d*]pyrimidine.

Report of the presence of these chemical compounds are valuable information for further study of chemical constituents of the genus *Didemnum*. However, it has been suggested that these compounds may be produced by the symbiotic microorganisms found with the tunicate.