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**Some Factors Which Influence Intrinsic Factor Content and Its mRNA Level
in the Rat Stomach**

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Factors which regulate Intrinsic Factor (IF) content and IF mRNA level were examined with an abc-ELISA and Northern blot analysis in growing rats, and compared with pepsinogen (Pg) and in terms of the increased need for vitamin B₁₂ (V. B₁₂). Increases in IF content and IF mRNA level gradually occurred from day 13 after birth, whereas those of Pg and Pg mRNA started from day 16. The effects of a few related hormones on the expression of IF mRNA were examined. The injection of hydrocortisone induced IF and Pg mRNA expression in 5-d-old postnatal rats. Furthermore, adrenalectomy-induced decreases in IF content and IF mRNA level in adult male rats were recovered with hydrocortisone administration.

IF content and IF mRNA level were measured in the artificially and physiologically created needs for V.B₁₂, the first being regeneration of the liver, the V.B₁₂ storing tissue, following partial hepatectomy and the second pregnancy or lactation. During regeneration of the liver, increases in IF content and IF mRNA level were marked, followed by reduction toward the original level after accomplishment of regeneration. Increases in IF content and IF mRNA level were also seen in lactating rats, but no increases were obtained in pregnant rats. These results suggest that the IF content and IF mRNA level are regulated not only by corticosteroids but also by the increased need for V.B₁₂.