CHAPTER V. CONCLUSIONS

5.1 Conclusion

The conclusion of this study are as follows :

1. Lima Bean and Patin Fish Flour (LBPF) at doses of 7 g and 14 g significantly improved the morphometric growth parameters of malnourished rats. Administration of LBPF, especially at a dose of 7 g, increased tail length 3,22 times, hind leg length 2,55 times, and head circumference 2,35 times, due to the (P2 group) even exceeding those of the normal group. Ear length growth shown increase at dose 14 g, and increase 1,18 due to the malnourished group.
2. Lima Bean Flour and Patin Fish Flour (LBPF) at a dose of 14g significantly increased the number of chondroblasts and chondrocytes beyond that of the normal group, resulting in a 3,7 fold increase in growth plate thickness.
3. Lima Bean and Patin Fish Flour (LBPF) had an effect on increasing the percentage of total chondroid matrix area at a dose of 14 g. This resulted in a wider and more intense safranin staining area, thereby increasing the total area by 1,92 times to 87,30% compared to the malnutrition group, which was only 45,50%.

5.2 Suggestion

Based on the data and conclusions obtained, it is recommended that future researchers:

1. Analyze effect LBPF flour on biological molecular towards bone formation, to know the expression of genes and proteins involved in chondrocyte proliferation and differentiation, such as GH, IGF-1, Mtorc1, SOX9, Runx2, and FGF2.
2. Identify and quantify in more detail the amino acid, omega-3, vitamin, and mineral content of LBPF feed.