

**EMBRYOLOGY IN THE QUR'AN : THE STUDY OF
SCIENTIFIC PHENOMENON IN SURAH AL-'ALAQ TAFSIR
SALMAN PERSPECTIVE**

THESIS

Submitted to Ushuluddin, Adab and Dakwah Faculty in partial of the
requirements for the degree of Bachelor of art (SI)
in Qur'anic Exegesis Departement



Oleh :

FATHINA LUTHEFA QONITA
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**QUR'ANIC EXEGESIS DEPARTEMENT
USHULUDDIN, ADAB AND DAKWAH FACULTY
STATE UNIVERSITY OF ISLAMIC STUDIES
K.H. ABDURRAHMAN WAHID PEKALONGAN
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2023**

SURAT PERNYATAAN KEASLIAN SKRIPSI

Yang bertanda tangan di bawah ini:

Nama : Fathina Luthfa Qonita
NIM : 3118062
Prodi : Ilmu Al-Qur'an dan Tafsir
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Menyatakan dengan sesungguhnya, bahwa skripsi dengan judul **“EMBRYOLOGY IN THE QUR’AN : THE STUDY OF SCIENTIFIC PHENOMENON IN SURAH AL-‘ALAQ TAFSIR SALMAN PERSPECTIVE”** adalah benar hasil karya penulis berdasarkan hasil penelitian. Semua sumber yang digunakan dalam penelitian ini telah dicantumkan sesuai dengan ketentuan yang berlaku di Universitas Islam Negeri K.H. Abdurrahman Wahid Pekalongan.

Apabila di kemudian hari pernyataan ini terbukti tidak benar, maka penulis bersedia menerima sanksi yang berlaku di Universitas Islam Negeri K.H. Abdurrahman Wahid Pekalongan.

Pekalongan, 23 November 2022

Yang Menyatakan,



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NOTA PEMBIMBING

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Wonopringgo, Kab. Pekalongan**

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Hal : Naskah Skripsi Sdri. Nanik Dewi Puji Lestari

Kepada Yth.
Dekan Fakultas Ushuluddin, Adab dan Dakwah
c.q Ketua Jurusan Ilmu Al-Qur'an dan Tafsir
di-

PEKALONGAN

Assalamu'alaikum Wr. Wb.

Setelah diadakan penelitian dan perbaikan seperlunya, maka bersama ini kami kirimkan naskah skripsi saudara:

Nama : Fathina Luthfa Qonita

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Judul : **EMBRYOLOGY IN THE QUR'AN : THE STUDY OF
SCIENTIFIC PHENOMENON IN SURAH AL-'ALAQ
TAFSIR SALMAN PERSPECTIVE**

Dengan ini saya mohon agar skripsi saudara/i tersebut dapat segera dimunaqasyahkan.

Demikian nota pembimbing ini dibuat untuk digunakan sebagaimana mestinya. Atas perhatiannya, saya sampaikan terima kasih.

Wassalamu'alaikum Wr. Wb.

Pekalongan, 22 Desember 2022

Pembimbing,



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NIP. 19941201 201903 2 026

PEDOMAN TRANSLITERASI

Pedoman transliterasi yang digunakan adalah sistem transliterasi arab- latin berdasarkan SKB Menteri Agama dan Menteri P&K RI No. 158/1987 dan No. 0543 b/U/1987 tertanggal 22 Januari 1988. Transliterasi tersebut digunakan untuk menulis kata-kata Arab yang dipandang belum diserap ke dalam bahasa Indonesia. Kata-kata Arab yang sudah diserap ke dalam bahasa Indonesia sebagaimana terlihat dalam kamus linguistik atau Kamus Besar Bahasa Indonesia (KBBI). Secara garis besar pedoman transliterasi itu adalah sebagai berikut.

A. Konsonan Tunggal

Huruf	Nama	Huruf Latin	Keterangan
ا	Alif	-	tidak dilambangkan
ب	Bā	b	-
ت	Tā	t	-
ث	Śā	s	s (dengan titik di atasnya)
ج	Jīm	j	-
ح	Hā	h	h (dengan titik di
خ	Khā	kh	-
د	Dal	d	-
ذ	Žal	z	z (dengan titik di atasnya)
ر	Rā	r	-
ز	Zai	z	-
س	Sīn	s	-
ش	Syīn	sy	-
ص	Şād	ş	s (dengan titik di

Huruf	Nama	Huruf Latin	Keterangan
ض	Dād	d	d (dengan titik di
ط	Ṭā	t	t (dengan titik di
ظ	Zā	z	z (dengan titik di
ع	‘Ain	‘	koma terbalik (di atas)
غ	Gain	g	-
ف	Fā	f	-
ق	Qāf	q	-
ك	Kāf	k	-
ل	Lām	l	-
م	Mīm	m	-
ن	Nūn	n	-
و	Wāwu	w	-
ه	Hā	h	-
ء	Hamzah	'	apostrof, tetapi lambang ini tidak dipergunakan untuk hamzah di awal kata
ي	Yā	y	-

B. Konsonan Rangkap

Konsonan rangkap, termasuk tanda *syaddah*, ditulis rangkap.

Contoh: أحمدية ditulis *Ahmadiyyah*

C. Tā Marbutah di akhir kata

1. Bila dimatikan ditulis *h*, kecuali untuk kata-kata Arab yang sudah terserap menjadi bahasa Indonesia, seperti *salat*, *zakat*, dan sebagainya.

Contoh: جماعة ditulis *jamā'ah*

2. Bila dihidupkan ditulis *t*

Contoh: كرامة الأولياء ditulis *karāmatul-auliyā'*

D. Vokal Pendek

Fathah ditulis *a*, kasrah ditulis *i*, dan dammah ditulis *u*

E. Vokal Panjang

A panjang ditulis *ā*, i panjang ditulis *ī*, dan u panjang ditulis *ū*,

masing-masing dengan tanda hubung (-) di atasnya.

F. Vokal Rangkap

Fathah + yā tanpa dua titik yang dimatikan ditulis *ai*

Fathah + wāwu mati ditulis *au*

G. Vokal-vokal pendek yang berurutan dalam satu kata dipisahkan dengan apostrof (')

Contoh: أنتم ditulis *a'antum*

مؤنث ditulis *mu'annaś*

H. Kata Sandang Alif + Lam

1. Bila diikuti huruf qamariyah ditulis *al-*

Contoh: القرآن ditulis *Al-Qura'ān*

2. Bila diikuti huruf syamsiyyah, huruf 1 diganti dengan huruf syamsiyyah yang mengikutinya.

Contoh: الشيعة ditulis *asy-Syī'ah*

I. Huruf Besar

Penulisan huruf besar disesuaikan dengan EYD

J. Kata dalam rangkaian frasa atau kalimat

1. Ditulis kata per kata, atau

2. Ditulis menurut bunyi atau pengucapannya dalam rangkaian tersebut.

Contoh: شيخ الإسلام ditulis *Syaikh al-Islām* atau *Syakhul-Islām*

DEDICATION

In the name of Allah the Beneficent and the Merciful, the final project is dedicated to:

1. For my beloved parent, Mr. M. Khosib, S.Ag and Mrs. Anisah, A.md love and respect are always for them. Thank you very much for your support, prayer, and patience to make my education success.
2. My Supervisor Mrs. Sinta nurani, M.A. who had given the guidance until this thesis finished. Thank you very much for your suggestions, corrections, and ideas during the process of writing this thesis.
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5. My classmates IAT 2018 who always support me from start until now, more than words to show my feel.
6. Thank you for the nice people who always help me to finish this thesis.
7. My almamater UIN KH Abdurrahman Wahid

MOTTO

وَفِي خَلْقِكُمْ وَمَا يَبُثُّ مِنْ دَابَّةٍ آيَاتٌ لِقَوْمٍ يُوقِنُونَ

(AL-Jātsiyāh (45) : 4)

“And in your own creation, and whatever living beings He dispersed, are signs for people of sure faith.”

ABSTRACT

Qonita, Fathina Luthfa, 2022, **EMBRIOLOGY IN THE QUR'AN: THE STUDY OF SCIENTIFIC PHENOMENON IN SURAH AL-'ALAQ TAFSIR SALMAN PERSPECTIVE**. Thesis Ilmu Al-Qur'an dan Tafsir of UIN KH Abdurrahman Wahid Pekalongan. Shinta Nurani, MA

Keyword : *Embryology, Scientific Phenomenon, Tafsir Salman*

Salman's Tafsir has represented the integration between the Qur'an and science by answering the polemic of scientific interpretation in the discourse of Al-Qur'an scholars. However, there are still rare studies on embryology related to surah al-Alaq, most of these surah al-Alaq present education.

This research is a library research study, using descriptive analysis trying to describe a systematic analysis of the interpretation of QS Al-Alaq regarding embryology and its relation to modern science in Salman's Tafsir, through the interpretation function theory of Jorge JE Gracia.

Tafsir Salman does not rule out the elements of Ulum Al-Qur'an in the dialectic of his interpretation. This fact becomes a strength in itself in the analysis of the three functions of interpretation, namely; Asbab Nuzul as the basis of historical function, linguistic analysis which represents the function of meaning, and scientific integration describes the implicative function. So that with this it is able to convey messages to contemporary audiences.

The results of the Research on the Interpretation of Scientific Phenomena in Surah Al-Alaq in Salman's interpretation that not all verses in Surah Al-Alaq are interpreted, only those that are related to science, namely first, related to reading (Iqra') viewed from various perspectives including philosophy science, psychology, informatics, instrumentation, the second is alaq as a term to explain embryological processes, the third, al-Qalam in a philosophical, semiotic and anthropological perspective. The last is related to the word nasyiyah (crown) from the perspective of Neurology.

The interpretation of the concept of embryology in Salman's Interpretation of Surah al-Alaq verse 2 can be explained, namely first, historically this verse was revealed before the prophecy of the Prophet Muhammad SAW. Second, Qs. al-Alaq verse 2 has the keyword alaq which has the basic meaning attached or dependent, more precisely interpreted as a blastula (a lump of cells attached to the wall of the uterus). Third, in the development of meaning in the interpretation of Surah al-Alaq verse 2, namely the embryological process starts from the meeting of the ovum and sperm to become an embryo, this embryo undergoes an implantation process, in this process the embryo or zygote is a collection of cells attached to the wall of the uterus. This collection of cells is termed in the Qur'an as 'alaq. This zygote will divide into a blastula then a blastula (mudghah), into organogenesis (izham) then histogenesis (lahm) and finally into another form of being. and finally, the moral value as the implication of Qs.al-Alaq verse 2 is that humans should not be arrogant because humans are only weak creatures who are unable except only by depending on Allah.

ABSTRAK

Qonita, Fathina Luthfa, 2022, **EMBRIOLOGY IN THE QUR'AN: THE STUDY OF SCIENTIFIC PHENOMENON IN SURAH AL-'ALAQ TAFSIR SALMAN PERSPECTIVE**. Thesis Ilmu Al-Qur'an dan Tafsir UIN KH Abdurrahman wahid Pekalongan. Shinta Nurani, M.A.

Kata kunci : *Embriology, Scientific Phenomenon, Tafsir Salman*

Tafsir Salman telah merepresentasikan integrasi antara Al-Qur'an dan sains dengan menjawab polemik penafsiran ilmiah dalam diskursus sarjana Al-Qur'an. Akan tetapi, masih jarang studi tentang embriologi yang berkenaan dengan surah al-Alaq, kebanyakan surah al-Alaq ini menampilkan mengenai pendidikan.

Penelitian ini merupakan penelitian *liberary research*, dengan menggunakan analisis deskriptive berusaha menggambarkan analisis sistematis terhadap penafsiran Q.S Al-Alaq tentang embriologi dan kaitannya dengan ilmu sains modern dalam Tafsir Salman, melalui teori fungsi interpretasi Jorge J.E Gracia.

Tafsir Salman tidak mengesampingkan unsur-unsur Ulum Al-Qur'an dalam dialektika interpretasinya. Kenyataan tersebut menjadi kekuatan tersendiri dalam analisis tiga fungsi interpretasi, yaitu; Asbab Nuzul sebagai basis fungsi historis, telaah linguistik yang merepresentasikan fungsi makna, dan integrasi keilmuan menggambarkan fungsi implikatif. Sehingga dengan ini mampu menyampaikan pesan kepada audiens kontemporer.

Hasil dari Penelitian Interpretasi Fenomena Saintifik surat Al-Alaq dalam tafsir salman bahwa tidak semua ayat yang ada dalam surat al-Alaq ini ditafsirkan hanya yang ada keterkaitan dengan sains saja yakni pertama, terkait dengan membaca (*Iqra'*) yang ditinjau dari berbagai perspektif diantaranya filsafat ilmu, psikologi, Informatika, Instrumentasi, kedua alaq sebagai term guna menjelaskan proses embriologi, ketiga, al-Qalam dalam perspektif falsafati, semiotika dan antropologi. Terakhir terkait dengan kata nasyiyah (Uyun-uyun) dari perspektif Neurologi.

Interpretasi konsep embriologi dalam Tafsir Salman atas surat al-Alaq ayat 2 dapat dijabarkan yakni pertama, secara historis ayat ini turun pra nubuwah nabi Muhammad SAW. Kedua, Qs. al-Alaq ayat 2 ini memiliki kata kunci alaq yang memiliki makna dasar melekat atau bergantung, lebih tepatnya ditafsirkan sebagai blastula (gumpalan sel yang melekat di dinding rahim). Ketiga, pada pengembangan makna dalam penafsiran surat al-Alaq ayat 2 yakni proses embriologi ini dimulai dari bertemunya ovum dan sperma menjadi embrio, embrio ini mengalami proses implantasi, pada proses ini Embrio atau zigot merupakan kumpulan sel yang menempel di dinding rahim. Kumpulan sel inilah yang di istilahkan dalam al-qur'an sebagai 'alaq. Zigot ini akan membelah menjadi blastula kemudian glastula (*mudghah*), menjadi organogenesis (*izham*) lalu histogenesis (*lahm*) dan terakhir menjadi makhluk bentuk lain. dan terakhir, *moral value* sebagai implikasi dari Qs.al-Alaq ayat 2 ini yakni manusia tidak patut sombong karena manusia hanyalah makhluk lemah yang tidak mampu kecuali hanya dengan bergantung kepada Allah. Bersyukur kepada Allah telah dijadikan sebagai manusia.

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Finally this research is expected to be able to provide useful knowledge and information to the readers. Moreover, the researcher is pleased to accept more suggestion and contribution from the reader for the improvement of the research.

Pekalongan, Desember 2022

The researcher

A handwritten signature in black ink, appearing to read 'Fathina', with a long, sweeping flourish extending to the right.

Fathina Luthfa Qonita
NIM.3118062

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CHAPTER I

INTRODUCTION

A. Background of Problem

Tafseer Qur'an is a product of thought¹ which is always experiencing developments that are influenced by the dynamics of human civilization tafseer always presents a new face in every era.² It was marked when the golden age of Islamic civilization, namely the period of the *Abbasyiah* dynasty, specifically in the al-Makmūn's government³ codified linguistics and philosophy, translations of classical works from pre-Islamic civilizations such as Greece, Persia, and India. At this time, there were also various methods, directions of interpretation, and *madzhab* of interpretation of the Qur'an. In addition, there are also various styles al-Qur'an interpretation such as: *fiqh*, *kalam*, *balaghah*, *isyari* or *tasawuf*, socio-cultural (adabi ijtima'i), as well as philosophy and science.⁴

One type of epistemology of tafseer that is interesting to be discussed is *tafsir ilmi*, an interpretation of the Qur'anic verses that contain scientific requirements from the perspective of Modern science.⁵ According to *Yusuf al-Qaradawi* said that *tafsir ilmi* is an interpretation that uses a set of

¹ MK. Ridwan, *Tradisi Kritik Tafsir: Diskursus Kritisisme Penafsiran dalam Wacana Qur'anic Studies*. (Semarang: Jurnal THEOLOGIA, No 1 vol. 28, 2017), hlm.67.

² Annas Rolli Muchlisin, & Khairun Nisa. *Geliat Tafsir 'Ilmi Di Indonesia Dari Tafsir Al-Nur Hingga Tafsir Salman*. (Journal of Islamic Studies and Humanities, 2017), hlm.241.

³ Lajnah Pentashihan Mushaf Al-Qur'an. *Waktu Dalam Perspektif Al-Qur'an dan Sains*, (2013), hlm.Xxi.

⁴ Sujjat Zubaidi Saleh, *Epistemologi Penafsiran Ilmiah al-Qur'an*. *Institute Studi Iskam Darussalam (ISID)*. (Ponorogo: Gontor No 1 Vol.7), hlm.111.

⁵ Lajnah Pentashihan Mushaf Al-Qur'an, *Waktu Dalam Perspektif Al-Qur'an dan Sains*, (2013), hlm.xxii.

contemporary science, reality and theory of *tafsir ilmi* it self to explain the meaning of the Qur'an.⁶ In essence, this *tafsir ilmi* is an interpretation that uses a scientific style in interpreting the verses of the Qur'an.

This discourse on *tafsir ilmi* has long drawn pros and cons from classical to modern *ulama*⁷, and was highlighted as a controversial *manhaj*.⁸ Starting from a big question one comes first, whether scientific understanding is then searched for the verses in the Qur'an or the understanding of the Qur'an which then encourages to do scientific research.⁹ Associated with this discussion it created two camps.

First, *Ulama* who are pro-*tafsir ilmi*, namely Fakhrudin al-Razi, Abu Hamid al-Ghazali, Ibn Abi al-Fadl al-Mursi known as representatives of classical Muslim thinkers They supported the existence of *tafsir ilmi* as well as the pioneer of the emersion of *tafsir ilmi*¹⁰ Meanwhile, in modern times, figures who are pro *tafsir ilmi* are *Tanṭāwi Jauhari, Muhammad Abduh, Hanafi Ahmad*.¹¹

⁶ Ali Akbar, *Kontribusi Teori Ilmiah Terhadap Penafsiran*. (Riau: UIN Sultan Syarif Kasim, Jurnal Ushuluddin, 23(1), 2015), hlm.23.

⁷ Lajnah Pentashihan Mushaf Al-Qur'an, *Waktu Dalam Perspektif Al-Qur'an dan Sains*, (2013) hlm.xxiv.

⁸ Abdul Hafidz. *Model Penafsiran M. Quraish Shihab terhadap ayat-ayat kawaniyah dalam tafsir al-Misbah*. (Surabaya: UIN Sunan Ampel Surabaya, 2021), hlm.

⁹ Annas Rolli Muchlisin, & Khairun Nisa *Geliat Tafsir 'Ilmi Di Indonesia Dari Tafsir Al-Nur Hingga Tafsir Salman*. (Journal of Islamic Studies and Humanities, 2017), hlm.243.

¹⁰ Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Amma*. (Bandung: Mizan pustaka, 2014), hlm.23.

¹¹ Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Amma*. (Bandung: Mizan pustaka, 2014), hlm.24.

Second, ulama who are against the existence of tafsir ilmi are *Abu Ishak Ibrahim bin Musa Asy-Syātibial-Andalusi*, *Abu Hayyan al-Andalusi*.¹² In the next era there are *Mahmūd Syaltūt*, *Amin al-Kuli*, *'Abbās 'Aqqād*,¹³ and *Rashid Ridha*.¹⁴

Although this *tafsir ilmi* has rise some various polemics, its development is so fast that it is marked by the emersion of various works of *tafsir ilmi*. The first pioneer in *tafsir ilmi* was *Imam Al-Ghazali* (w.505H) in the *Jawahir al-Qur'an* and *Ihya' Ulum al-Din*.¹⁵ However, *Al-Ghazali* did not succeed in realizing his main ideas regarding *tafsir ilmi*,¹⁶ he stated only theoretically. He explained the principles of *tafsir ilmi*¹⁷ namely that knowledge is included in *'af'al* and the nature of Allah. Knowledge is unlimited and in the Qur'an there are is guidance in its entirety.¹⁸

In the next period, tafseer *Mafatihul Gaib* by ar-Razi was appeared as the first work of tafseer containing the scientific interpretation of the verses of the Qur'an.¹⁹ After *ar-Razi*, came the tafsir work by of Middle Eastern *Ulama'*

¹² Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Amma*. (Bandung:Mizan pustaka, 2014,hlm.24.

¹³ Lajnah Pentashihan Mushaf Al-Qur'an. *Waktu Dalam Perspektif Al-Qur'an dan Sains*,(2013),hlm.xxiv.

¹⁴ Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Amma*. (Bandung:Mizan pustaka, 2014,hlm.24.

¹⁵ Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Amma*. (Bandung:Mizan pustaka, 2014,hlm.23.

¹⁶ Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Amma*. (Bandung:Mizan pustaka, 2014,hlm.24.

¹⁷ Annas Rolli Muchlisin & Khairun Nisa, *Geliat Tafsir ' Ilmi Di Indonesia Dari Tafsir Al-Nur Hingga Tafsir Salman*.(Journal of Islamic Studies and Humanities,2017),

¹⁸ Al-Ghazali, *Ihya' Ulumuddin*. (Muassasah al-Halbi,1370).hlm.260-261.

¹⁹ Lajnah Pentashihan Mushaf Al-Qur'an *Waktu Dalam Perspektif Al-Qur'an dan Sains*,(2013)hlm.xxiii.

such as *Rūh al-Ma'āni fī Tafsīr al-Qur'an al-'Azīm wa Sab'al Matsani* by al-Alūsi.²⁰

Meanwhile, in the Indonesian context, there are examples of tafseer work with scientific interpretations such as *Tafsīr An-Nur* by *Hasbi Ash-Shidiqy*, *Seri Tafsīr Al-Qur'an bil Ilmi al-Qur'an, Ilmu Pengetahuan dan Teknologi* by *Ahmad al-Baiquni*²¹, as well as *Tafsīr Salman*.

The peak of the controversy over this *tafsīr ilmi* occurred at the beginning of the 20th century on the work of *Tafseer al-Jawahir* by Sheikh Tantawi Jauhari which explains about 750 verses of the Qur'an on scientific cues, for place this number exceeds the number of legal verses which are only 150 verses.²² In addition, it also includes many pictures such as natural landscapes, plants, animals, scientific tables so that they are criticized as encyclopedic books.²³

Apart from Tantawi Jauhari, Maurice Bucaille is another example of a French figure who has also written works on verses of the Qur'an too with modern science, and it was assumed *bid'ah* by tradisional ulama,²⁴ and criticized by *Ziauddin Sardar*, a Pakistani thinker living in England. He called the followers of Bucaille as *Bucailis*, they are people who are looking for a

²⁰ Ali Akbar, *Kontribusi Teori Ilmiah Terhadap Penafsiran*. (Riau: UIN Sultan Syarif Kasim, Jurnal Ushuluddin, 23(1), 2015), hlm.36-37.

²¹ Annas Rolli Muchlisin & Khairun Nisa, *Geliat Tafsīr 'Ilmi Di Indonesia Dari Tafsīr Al-Nur Hingga Tafsīr Salman*. (Journal of Islamic Studies and Humanities, 2017), hlm.248.

²² Abdul Hafidz, *Model Penafsiran M. Quraish Shihab terhadap ayat-ayat kawaniyah dalam tafsīr al-Misbah*. (Surabaya: UIN Sunan Ampel Surabaya, 2021) hlm.

²³ Tim tafsīr ilmiah salman ITB, *Tafsīr Salman : Tafsīr Ilmiah Juz 'Amma*. (Bandung: Mizan pustaka, 2014), hlm.24

²⁴ Tim tafsīr ilmiah salman ITB *Tafsīr Salman : Tafsīr Ilmiah Juz 'Amma*. (Bandung: Mizan pustaka, 2014), hlm.25.

correlation of all verses in the Qur'an with modern scientific facts, both verses that have physical or metaphysical nuances.²⁵

Contrary to the reality of the conflict in scientific interpretation, for place the main criticism is that it seems as if Muslim scientists are looking for the truth of modern science in the Qur'an in showing the superiority of Islam as an apologetic compensation for their inferiority complex about the backwardness of Muslims in the fields of science and technology from the Western. But, modern science is rooted from Islamic science and philosophy which was integrated with religion in the golden age of the *Abbasyiah* dynasty.²⁶ Thus the scientific interpretation strengthens the evidence that the Qur'an is a source of guidance which contains a lot of knowledge, both scientific and non-scientific.

The method of Scientific Interpretation aims to strengthen the scientific theories, not the other way around. This tafseer is only limited to verses about the physical realm, not to explain the metaphysical realm such as the afterlife (*akhirat*).²⁷ The reason for the scientific explanation because the call of the Qur'an is basically a call to knowledge. An appeal based on rational freedom,²⁸ even the Qur'an invites to reflect on the verse of the creation of man in the first revelation, namely the surah al-'Alaq verse two "*kholaqal insana min 'alaq*".

²⁵ Annas Rolli Muchlisin & Khairun Nisa, *Geliat Tafsir 'Ilmi Di Indonesia Dari Tafsir Al-Nur Hingga Tafsir Salman*. (Journal of Islamic Studies and Humanities, 2017), hlm. 242.

²⁶ Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Ammah*. (Bandung: Mizan pustaka, 2014), hlm. 25

²⁷ Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Ammah*. (Bandung: Mizan pustaka, 2014), hlm. 25-26.

²⁸ Sujiat Zubaidi Saleh, *Epistemologi Penafsiran Ilmiah al-Qur'an*. Institute Studi Iskam Darussalam (ISID). (Ponorogo: Gontor No 1 Vol. 7),

The first revelation, Surah Al-'Alaq verses 1-5, was revealed with the nuances of science. The first verse of this surah, according to Tafseer Salman, it relates to reading which can be viewed in terms of philosophy of science, psychology and instrumentation. The second verse of this surah is related to embryology, the fourth verse is related to the word of qalam, it relates to semiotic phenomena, anthropology and verses 15-16 are related to neurology.

In this study, it will be discussed in more detail about the embryological phenomena that exist in Surah al-'Alaq verse 2. This is unique because most of the existing research on Surah Al-'Alaq only examine about reading in the context of education and there is no research that reveals that Surah Al-'Alaq is a surah that shows human identity. As *Taufik Mukmin's* research entitled “*Urgensi Belajar dalam Perspektif Al-Qur'an surat al-'Alaq ayat 1-5 Menurut Tafsir Ibnu Katsir*” on February 15, 2019²⁹, *Sirajun Nasihin's* Research on the Qur'ani Education System (study of Surah Al-'Alaq verses 1 to 5) on January 31, 2020³⁰, Research by Isnaini Nur 'Afifah and Muhammad Slamet (October 31, 2020) on the Concept of Learning in the Qur'an Surah *Al-'Alaq* verse 1-5 (Study of *Tafsir Al-Misbah*)³¹

From the above background, the author is interested in researching how the scientific interpretation of embryology in Surah al-'Alaq verse 2 if its riewed from the perspective of *Tafsir Salman*

²⁹Taufik Mukmin, *Urgensi Belajar dalam Perspektif Al-Qur'an Surat Al-'Alaq Ayat 1-5 Menurut Tafsir Ibnu Katsir.*(El-Ghiroh: Jurnal Studi Keislaman, 201911(2).) <https://doi.org/10.37092/el-ghiroh.v11i2.53>

³⁰Sirajun Nasihin, *Sistem Pendidikan Qur'ani (Studi Surat Al-'Alaq ayat 1 sampai dengan 5).* (Pandawa : Jurnal Pendidikan dan Dakwah, 2020), hlm.

³¹Isnaini Nur 'Afifah, & Muhammad Slamet yahya. *Konsep Belajar Dalam Al-Qur'an Surat Al-'Alaq Ayat 1-5 (Studi Tafsir Al-Misbah).* (Arfannur, 2020) 1(1) hlm. 87–102

This study uses *Tafsir Salman's* Book, it was written by lecturers and scientists from the Bandung Institute of Technology (ITB) published in 2014 which is considered quite representative because this book was written by experts who pursue science and technology as well as in writing this interpretation through discussion by inviting experts In their field, includes experts in tafseer and arabic language experts. Another uniqueness is that in this methodology of *Tafsir Salman*, the verses of the Qur'an are first examined in language and then enter the previous scientific interpretations and finally interpret the version of *Tafsir Salman*.³²

Thus, as the description has been stated that research on scientific interpretation of embryology in Surah al-'Alaq verse 2 using *Tafsir Salman* is expected to make a significant contribution in providing an understanding of the study of *tafsir ilmi*. The researcher see this as an actual, urgent and worthy discourse.

B. Formulation of The Problem

The formulation of the problem is something that is very important in a reseach so that the discussion is more focused. Based on the background of the problem above, the researchers took the formulation of the problem as follows:

1. How is the scientific phenomenon in the surah al-'Alaq?
2. How is the scientific interpretation of *Tafsir Salman's* perspective on embryology in Surah al-'Alaq verse 2?

³² Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Amma*. (Bandung:Mizan pustaka, 2014,hlm.25

C. Purpose of Research

Based on the formulation of the problem above, the objectives of this research are: Understanding scientific phenomena in Surah al-'Alaq, Analyzing scientific phenomena about embryology in Surah al-'Alaq verse 2 from the perspective of *Tafsir Salman*.

D. The Benefit of The Research

The benefit of the research are:

1. Theoretical Benefits

Theoretically, the results of this study are expected to be able to contribute to the treasures of science, especially for the department of al-Qur'an science and tafseer, especially in the study of interpretation of science in the Qur'an.

2. Practical Benefits

Practically, the results of this study are expected to provide scientific contributions for mufassir, students and the wider community regarding scientific phenomena in Surah al-'Alaq and how the scientific interpretation of *Tafsir Salman's* perspective on embryology in Surah al-'Alaq verse 2

E. Literature Review

1. Theoretical Framework

Theory is reasoning in the form of a set of concepts, definitions and propositions that are systematically arranged which in general has three functions, those are explaining, controlling and predicting a phenomenon.³³

³³Sugiono, *Metode Penelitian Kuantitatif, kualitatif dan R&D*. (Alfabeta.,2017),hlm.54.

This theoretical framework is a conceptual framework that contains theories that will be used as the basis for thinking in research so that the research is not wrong and still leads to the research objectives which want to be achieved.

Thus, in this theoretical framework, the researcher synthesizes to the relevant theories in order to obtain conceptual legitimacy for the variables to be researched.

Based on the title of this research “Embriology In The Qur’an: The Study Of Scientific Phenomenon In surah Al-’Alaq *Tafsir Salman* Perspective” the theoretical analysis as follows:

a. *Tafsir ilmi* / Scientific interpretation

Tafsir ilmi in Muhammad Husain al-Dzahabi's point of view is a discussion about aspects of knowledge contained in the Qur'an and efforts to uncover various knowledge and thoughts contained in it both deductively and inductively.³⁴ Deductively means that the results of scientific discoveries are sought for the confirmation through the verses of the Qur'an, while inductively means that the Qur'an is placed as the basis for scientific research.³⁵

In essence *Tafsir ilmi* is an attempt to the further analysis about the verses of the Qur'an, especially the *Kauniyah* verses with various methods so that it is hoped that in the future it will produce new theories

³⁴ Faizin, *Integrasi Agama dan Sains dalam Tafsir Ilmi Kementerian Agama RI. 2017*, (25(1). <http://dx.doi.org/10.24014/jush.v25i1.2560>) .hlm.25

³⁵ Faizin *Integrasi Agama dan Sains dalam Tafsir Ilmi Kementerian Agama RI. 2017*, (25(1). <http://dx.doi.org/10.24014/jush.v25i1.2560>) hlm.25

of modern science that exist today. Then this interpretation is not only considered as a "meaning" which only tries to legalize every scientific finding today as something already contained in the Qur'an.³⁶

The basic principles in composing *Tafsir ilmi* are first, paying attention to linguistic rules. Second, paying attention to the context of the verse that is going to be interpreted. Third, paying attention to the hadits related to the verse. Fourth, not using verses that contain scientific cues to judge whether a scientific discovery is true or false. Fifth, do not use scientific discovers that are still theoretical and hypothetical because they can be changed.³⁷

b. Jorge J.E.Gracia's Hermeneutics

According to JE Gracia, text is a historical entity produced by the author and it appears at a certain time, situation and place, so that it is impossible for the text to exist by itself.³⁸

Jorge Gracia's hermeneutic theory is known as the interpreter function theory. This theory is carried out in three stages, those are historical function, meaning function, and implicative function. In addition, in interpreting a gracia text, Gracia paid attention to interpretandum, interpreter and interpretans.

The interpretation that will be interpreted in this study is the Qur'an surah al-'Alaq verse 2, determining keywords related to

³⁶ Rubini, *Tafsir Ilmi*. (jurnal Komunikasi dan Pendidikan Islam, 5(2),2016),hlm. 94.

³⁷ Lajnah Pentashihan Mushaf Al-Qur'an, *Waktu Dalam Perspektif Al-Qur'an dan Sains*,(2013),hlm.

³⁸ M.Dani Habibi,*Interpretasi Hermeneutika Jorge J.E.Gracia Dalam Al-Qur'an Surat Al-Maidah : 51*. (Qof, 3(2),2019),hlm.

embryology. Then the next step is to carry out the process of interpreting interpretants. Interpretans is an additional information which contains a historical function which includes *Asbabun Nuzul* Surah of al-'Alaq. Meaning function, finding meaning that can be understood by contemporary society so that it can capture the message of the verse is done after knowing the keywords and historical function. The last is the implicative function, the implications of a meaning taken from the text.

2. Relevant Research

This literature studying was done in order to obtain an overview of the relationship between the topic to be proposed and similar research that has been carried out by previous researchers, so that there is no unnecessary repetition.

Previous studies and research on the concept of embryology that intersect with the study of the Qur'an and tafseer as well as on the surah Al-'Alaq have been carried out, both thematically and methodologically which were then published in the form of books, journals, articles, essay, theses and dissertations. . However, based on the researcher's search and reading, there is still no research that examines specifically and comprehensively related to the title appointed by the researcher. The following is a description of previous research that is relevant to this research.

There are some Research related to Surah al-'Alaq. First, Taufik Mukmin's research entitled "*Urgensi Belajar dalam Perspektif Al-Qur'an*

surat al-'Alaq ayat 1-5 Menurut Tafsir Ibnu Katsir" on February 15, 2019.³⁹

The method of reviewing this journal article is not explicitly stated. From this research, it results in the interpretation of Ibn Kathir in Al-'Alaq verses 1-5, namely that we are ordered to always study, conduct investigations into everything we do not know, so that we can master it, proof of Allah's mercy, namely that Allah has taught mankind through the Qur'an. Second, Sirajun Nasihin on the Qur'anic Education System (study of Surah Al-'Alaq verses 1 to 5) on January 31, 2020.⁴⁰ This research is a qualitative research, with the content analysis (CA) method, examining verses one by one and then interpreting them by combining several views of experts (multi-interpretation) which are combined thematically in the field of education. Sirojun's research describe the education system that contains qur'anic values. Third, Isnaini Nur 'Afifah dan Muhammad Slamet Yahya (31 Oktober 2020) aregarding the Concept of Learning in the Qur'an Surah al-'Alaq verse 1-5 (Study of Al-Misbah's tafseer).⁴¹ This study uses discourse analysis with a hermeneutic approach. In the interpretation of Al-Misbah, it seeks to bridge the community in understanding the Qur'an more deeply and interpreting the Al-Qur'an by looking at the realities that are actually needed by the community, especially related to Surah al-'Alaq verse 1-5. with the theme of learning, that is reading which is not only in the form of written

³⁹ Taufik Mukmin *Urgensi Belajar dalam Perspektif Al-Qur'an Surat Al-'Alaq Ayat 1-5 Menurut Tafsir Ibnu Katsir.*(El-Ghiroh: Jurnal Studi Keislaman, 201911(2).) <https://doi.org/10.37092/el-ghiroh.v11i2.53> hlm.

⁴⁰ Sirajun Nasihin *Sistem Pendidikan Qur'ani (Studi Surat Al-'Alaq ayat 1 sampai dengan 5).* (Pandawa : Jurnal Pendidikan dan Dakwah,2020),hlm.

⁴¹ Isnaini Nur 'Afifah, & Muhammad Slamet yahya *Konsep Belajar Dalam Al-Qur'an Surat Al-'Alaq Ayat 1-5 (Studi Tafsir Al-Misbah).* (Arfannur,2020) 1(1)) hlm.

text, because of the reading the path of knowledge. Fourth, Nasrulloh Subekan's Thesis entitled "Heutagogi dalam Al-Qur'an : Kajian surat Al-'Alaq ayat 1-5."⁴² This type of research is library research with a qualitative model, and using the maudhu'i (thematic) method. The result of this research is that in al-'Alaq verses 1-5 it produces three heutagogical concepts. That is first, self-determined learned with the keyword iqra' which means research, collect and study. Second, Double Loop Learning, that is repeating to develop what has been obtained. Third, capability development contained in verses 4 and 5, namely developing and honing abilities of Mathematical Wondrous in the Al-Qur'an Through Surah Al-'Alaq.⁴³

Researches related to embryology in the study of the Qur'an and tafseer are : First, Abdul Halim Nasution in his work : *Embriologi dalam perspektif Al-Qur'an*⁴⁴ it is not stated explicitly about the method and approach and also certain the use of tafsir in this research. The results of Halim's research reveal about embryology in Surah al-Mukminun verses 12-14 starting from pre-nuthfah namely the creation of sperm cells from *ma'daafiq*, *ma'mahin*, *maniyyiyumna*, *nuthfah* (spermatozoa) then *'alaqah* (blastocyst), *mudghah* (embryo), and then in the last stage the formation of bones and muscles into perfect beings. Second, Muhammad Izzuddin Taufiq in his book *Dalil Anfus Al-Qur'an dan Embriologi (ayat-ayat tentang*

⁴² Nasrulloh Subekhan. *Heutagogi dalam Al QUR'AN: Kajian surat Al 'Alaq ayat 1-5*, (Universitas Islam Negeri Sunan Ampel Surabaya, 2019), hlm.

⁴³ Nur Dalila Ishak, Adem Kiliçman, Sharifah Kartini Said Husain, & Rossemi Din, *Mathematical Wondrous In The Al-Qur'an Through Surah Al-'Alaq*, (Journal of Personalized Learning, 3(1), 2020), hlm.

⁴⁴ Abdul Halim Nasution, *Embriologi Manusia Dalam Perspektif Al-Qur'an*. (nizhamiyah, 10(1), 2020 <http://dx.doi.org/10.30821/niz.v10i1.737>), hlm.

penciptaan Manusia).⁴⁵ Third, Achmad Khafit Nur Saifullah in his reseach “*Proses Pembentukan Embrio Perspektif Al-Qur’an : Perbandingan Penafsiran Quraish Shihab dan Hamka Terhadap Surat Al-Mu’minun ayat 12-14.*”⁴⁶ He used library research using the tafseer *muqaran* method. The interpretations of Quraish Shihab and Hamka on the Surah Al-Mukminun verses 12-14 have similarities and differences. The similarities are in the meaning of *sulalaminthin*, *qararinmakin*, *mudghah*, and *nuthfah*. The difference is in the meaning of *ifadz al-insan*, *'alaqah* and the explanation of the time from *nuthfah* to *'alaqah*, as well as the meaning of *kholaqan akhor*.

From the literature review above, it can be concluded that work has differences and similarities with the previous studies. The location of the similarities is that they both study the surah al-'Alaq.

Furthermore, the difference are first, previous research focused more on the concept of learning and reading. Second, previous studies, although they have studied embryology, but they have not specifically examined the concept of embryology in Surah al-'Alaq verse 2 in the perspective of tafseer salman.

In this case, the problem of this research has never been studied. There is an element of novelty. Researchers will conduct research on embryology in the Qur'an, focused on studying scientific phenomena in Surah al-Alaq tafsir salman's perspective. Based on theory of Gracia's Hermeneutic and

⁴⁵Muhammad Izzuddin Taufiq, *Dalil Anfus Al-Qur'an dan Embriologi (Ayat-Ayat tentang Penciptaan Manusia)*. (tiga serangkai, 2006)

⁴⁶ Achmad khafit Nur Saifullah, *Proses Pembentukan embrio Perspektif Al-Qur'an: Perbandingan penafsiran Quraish Shihab dan Hamka Terhadap Surat Al-Mukminun Ayat 12-14*. (UIN Sunan Ampel Surabaya, 2015 <http://digilib.uinsby.ac.id/ideprint/2607>), hlm.

comprehensive analysis through the perspective of tafsir ilmi. From the previous research that has been researched, the author did'n find a specific discussion about Embryology in tafsir salman's perspective. Thus, This research is pure and does not reduce the originality of the research that is examined by the researcher and can be continued to the next stage.

3. Tentative Theory Construct

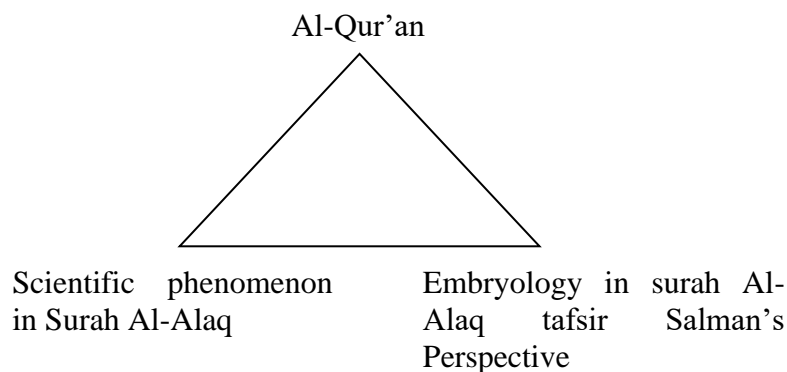
The conceptual framework in this research is based on the research title " Embriology In The Qur'an: The Study Of Scientific Phenomenon In Surah Al-'Alaq *Tafsir Salman* Perspective" So to clarify and avoid mistakes in understanding this research, the researcher construct it as follows:

The emersion of the interpretation of the Qur'an using scientific theory began with the wave of Hellenism during the *Abbasyiah* era, namely the government of al-Ma'mun. There was the translation of western books into Arabic which subsequently gave birth to a new style in the field of interpretation, namely the scientific interpretation of this interpretation which gave birth to embryological studies from the perspective of Al-Qur'an

In the Indonesian context, the discourse on the integration of religion and science gave birth to a lively discourse with one of the real works of this development, namely the existence of *tasir salman* which has a scientific style, in which it interprets the verses in juz 30 of the Qur'an (Juz Amma).

In this study, we will focus on the scientific interpretation of embryology in Surah al-'Alaq verse 2 in *Tafsir Salman* by using the

interpreter function theory of hermeneutics, Jorge JE Gracia. Here is the concept map :



F. Research Methods

1. Research Type and Design

This research is a qualitative research, namely research procedures that produce descriptive data.⁴⁷ In this case, this descriptive data aims to explain various phenomena that are the object of in-depth research so as to obtain the desired data by looking at and studying embryology in Surah Al-'Alaq verse 2 from the perspective of *Tafsir Salman*.

The type of research is library research, namely collecting library data from various sources, both books, journal articles related to the research topic, where researchers do not need to go into the field with surveys or observations.

This research approach using Jorge Gracia's hermeneutic theory is known as interpreter function theory.

⁴⁷Lexy J Moleong, *Metodologi Penelitian Kualitatif*. (PT Remaja Rosdakarya, 2018), hlm.59.

2. Research variable

This research has several variables, namely:

a. Embryology

Embryology is part of the study of developmental biology which studies the formation of embryos.⁴⁸

There are a kauniyah verses that provide information about embryology such as : surah yasin :7, Abasa:18-19, al-A'raf : 189, al-Mukminun:12-14, al-Hajj:5,al-Fathir : 11, al-Mulk: 23, at-Tin: 4-6, al-Thariq : 5-7, al-Alaq : 2 and as-Sajdah :7-9.⁴⁹ The Qur'an uses the terms sulalah, nuthfah, 'alaqah, mudhghah, 'idzam and lahm.⁵⁰

b. Surah al-'Alaq

Surah al-'Alaq is a surah contained in juz 30 which was revealed in Mecca, including the Makiyyah surah group consisting of 19 verses.

c. *Tafsir Salman*

A work of 'scientific interpretation' which is phenomenal among Indonesian scholars. The work is “Tafsir Salman Tafsir Ilmiah Atas Juz ‘Amma, a work by ITB lecturers and scientists. The emergence of *Tafsir Salman* is motivated by the inequality that occurs in the world

⁴⁸ M.Haviz,*Konsep dasar Embriologi: Tinjauan Teoritis*,(Jurnal Sainstek, VI(1),2014),hlm.96.

⁴⁹ Wan Helmy Shahrman Wan Ahmad Dan Azarudin Awang, *al-ilmu hamka's interpretation approach to al-kawniyyah verses* (embriology). IJQK (international journal of qur'an and knowledge) 1 juni 2022, hlm.47.

⁵⁰ Wan Helmy Shahrman Wan Ahmad Dan Azarudin Awang, *al-ilmu hamka's interpretation approach to al-kawniyyah verses* (embriology). IJQK (international journal of qur'an and knowledge) 1 juni 2022, hlm.48.

of interpretation. Dr. Ir. Syarif Hidayat, chairman of the YPM Salman ITB Board, said that the activities of interpreting the Qur'an so far still touch more on socio-political-social messages, even though the Qur'an does not talk less about the universe, from the macrocosm to the universe. microcosm. This lack of interpretation of natural signs has made it difficult for many Muslim scientists and technologists to interpret their own scriptures.⁵¹

Tafsir Salman was published in 2014, in the Bandung area. As a book of interpretation that carries the interpretation of the Qur'an with a scientific style, Tafsir Salman seeks to give another nuance to the interpretation of the Qur'an through the use of scientific theories to describe the meaning of the Qur'an.

3. Data source

To obtain the data needed in this study, the authors used primary data and secondary data which include:

- a. Primary data which is the main and principal data source is the *Tafsir Salman Surah Al Alaq*.
- b. Secondary data, data taken to explain matters relating to the main theme that we are studying are in the form of books, articles such as : *Interpretasi Hermeneutika Jorge J.E.Gracia Dalam Al-Qur'an Surat*

⁵¹Tim tafsir ilmiah salman ITB, *Tafsir Salman : Tafsir Ilmiah Juz 'Ammah*. (Bandung: Mizan pustaka, 2014 hlm.3.

*Al-Maidah : 51*⁵² and other books related to the object of this study that if possible can be used. to analyze the theme.

4. Data collection technique

Data was collected by means of observation and documentation. Observation is a data collection method in which research records information during research related to embryology and scientific interpretation in a systematic way using the process of collecting, selecting, processing, and storing information in the field of knowledge; providing or collecting evidence from information such as pictures, quotes, newspaper clippings, and other reference materials by the five senses. Meanwhile, according to the KBBI, documentation is collection, selection and storage of information in the field of knowledge.

5. Data Processing and Analysis Method

The data analysis methods in this study are: Content Analysis. This analysis includes special procedures that aim to provide knowledge, open new insights. Intuitively, this analysis has the character of a symbolic meaning research method.

First, the message has a double meaning that is open. Data can always be viewed from several perspectives, especially if the data is truly symbolic.

Second, meaning does not have to be scattered, although intersubjective agreement about the meaning of a message will greatly

⁵² M.Dani Habibi,.....hlm.

facilitate analysis. This consensus only applies to the obvious aspects or only to a few people who share the same cultural and socio-political perspectives.

Thus it can be said that the analytical technique here can be applied in interpreting the verses of the Qur'an because this technique is based on the fact that the data encountered are descriptive, not quantitative data.

G. Systematic Research

In order to provide a simple description in order to facilitate the writing of this thesis, a writing systematic consists of five chapters with the following details: First Chapter is background of the problem, formulation of the problem, purpose of research, the benefit of the research, literature review : theoretical framework and relevant research, research methods: research type, research design , variable research, data source, data collection technique, data processing, analysis method and systematic research.

Then, second Chapter is an explanation of the embryology in *tafsir ilmi*. It is Embryology concept in the saint's perspective, tafsir ilmi, embryology in tafsir ilmi, and Gracia's hermeneutics.

And then third Chapter about Introduces *Tafsir Salman* by the Bandung Institute of Technology (ITB), and then scientific phenomena in surah al-Alaq tafsir salman's Perspective.

And then Fourth Chapter is a chapter that contains scientific phenomena and scientific interpretation of embryology in Surah al-'Alaq

from the perspective of *Tafsir Salman's* and analysis of embryological concept
Interpretation of tafsir salman's in Al-Alaq verse 2 .

Finally fiveth Chapter is the closing which contains conclusions and
suggestions for this research and future research.

CHAPTER V

CONCLUSIONS AND SUGGESTION

A. Conclusion

Based on the results of the discussion and research from chapter I to chapter IV, in chapter V, the writer will answer the conclusions of this study as follows:

1. Interpretation of the Scientific Phenomenon of Surah Al-Alaq in Salman's interpretation that not all verses in Surah Al-Alaq are interpreted, only those that are related to science, namely first, related to reading (Iqra') viewed from various perspectives including philosophy of science , psychology, informatics, instrumentation, the second is alaq as a term to explain embryological processes, third, al-Qalam in a philosophical, semiotic and anthropological perspective. The last is related to the word nasyiyah (crown) from the perspective of Neurology
2. The interpretation of the concept of embryology in Salman's Interpretation of Surah al-Alaq verse 2 can be explained, namely first, historically this verse was revealed before the prophecy of the Prophet Muhammad SAW. Second, Qs. al-Alaq verse 2 has the key word alaq which has the basic meaning attached or dependent, more precisely interpreted as a blastula (a lump of cells attached to the wall of the uterus). Third, in the development of meaning in the interpretation of Surah al-Alaq verse 2, namely the embryological process starts from the meeting of the ovum and sperm to become an embryo, this embryo undergoes an implantation process, in this

process the embryo or zygote is a collection of cells attached to the wall of the uterus. This collection of cells is termed in the Qur'an as 'alaq. This zygote will divide to become a blastula then a blastula (mudghah), into organogenesis (izham) then histogenesis (lahm) and finally into other forms of beings. there is a moral value as the implication of Qs.al-Alaq verse 2, namely that humans should not be arrogant because humans are only weak creatures who are unable except only by depending on Allah. Thank God for being made human.

B. Suggestion

There are still many interpretations from the other side of ITB's Salman's interpretation that have not been studied, even other Kauniyah verses that really need to be studied. It is necessary, especially for activists of 'scientific interpretation' to examine the works of Muslim scientists especially in the field of 'scientific interpretation, where there are still many theories that are actually accurate and may actually be pioneers in the field of science. However, in pure science studies, it only displays the findings of western (non-Muslim) scientists.

For the Department of Al-Qur'an Interpretation, hopefully in the future this study of scientific interpretation can be included in the course, so that students of Al-Qur'an Interpretation in particular can be more enthusiastic about developing studies on scientific interpretation.

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