THE MEDICAL SCIENCE PERSPECTIVES ON THE STAGE OF MAN CREATION IN THE QUR'AN

THESIS

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ABSTRACT

Ayu Nusa Kharisma. The Medical Science Perspectives on the Stage of Man Creation in the Qur'an

Man is Allah noble creation, from his shape, characteristic, intellect, sense etc. Man differences with other Allah creation, they have life but their characteristic not as man. All of about man said in the Qur'an includes stages of their creation.

Man body is complicated machine in the world, from the body component until the internal organs are organized with marvelous design and when they examine their construction, they will find more amazing fact.

Human embryology has studied for centuries, but had not finds the detail explanation about man creation. For the time being the theory of man creation deviated from the fact, because man knowledge is limitedness. Then Allah revealed the Qur'an and teach human with Allah knowledge in the Qur'an as source of all knowledge.

Al Muminoon 12-14 and Al Hajj 5 explain how Allah creates man in perfect process. That verses will discussed and recited clearly. This research will use Al Jawahir and Al Maraghi exegesis as the basic commentators (mufassir). And it needs analyze to get understanding of verses which are concerned with scientific, because in fact science is not contra with the Quran and many verses of the Quran talk about medical science.

Thirteen centuries after the Qur'an revealed did researches about embryology made by western, but the more they research the unbelievers they became. They said that man creation in scientific concept and the Qur'an reflect differences. Until many contradiction appeared to deny the Qur'an truth.

Therefore Islamic scientists make research for the Qur'an text as the first reference of Islamic law. Commentators (mufassir) try to interpret the Qur'an detail with uses science and technology to reveal the Qur'an secret by scientific exegesis method until western admit that the Qur'an truth is absolute.

Key word: Man creation, scientific exegesis, embryology, difference, the Our'an.

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CHAPTER I

INTRODUCTION

I.1. Background

The Qur'an is Islamic prominent source, comes from Allah and it contains the guidance for humankind, because the Qur'an message is trusted every time. The Quran is a document that squarely aimed for man; indeed it called by "guidance for humankind". 1

The Qur'an is literal word of Allah revealed to the prophet Muhammad as the universal message, a complete and comprehensive guidance for the human. The prophet comes to interpret the Qur'an verses but he did not comment on every verse. Therefore, it needs commentators (mufassir) to explain those verses which were not commented and expounded by the prophet.

Salam Madkur said Quran is Arabic words which reduced to the Prophet Muhammad by Mutawatir and recorded in one Mushaf, from the first chapter Al Fatihah closed by chapter An Nass and who's read it is charities.² The Quran is not merely book but more then guidance it gives sign to man for all His Might in every time and place. It is the lasting miracle which indicated many entire mysteries to man. Before talk about natural miracles in the Quran it needs to understand that the Qur'an is not scientific book. It is guidance book in the world and the hereafter, then it not amazing if found many

Fazlur Rahman, Major Themes of The Qur'an, Minneapolis: Bibliotheca Islamica, 1989,

² Imam Muchlas, *Metode Penafsiran Al Qur'an*, Malang: UMM Press, 2004, p. 4

implied and written ns about science in it, to support the Quran function as a guidance book.

That is the Quran miracles which reduced to the Prophet Muhammad to proof the truth of His apostle among his community. As the last apostle, the different and the especially miracle given to him, such the fact and the crucial of chemistry secret of man creation, one of modern medical science, although he is not a scientist but what his describe on the Quran about man creation is detail. This is show that he is the truth carrier of Allah message and everything in the Quran comes from Allah is truth.

The Creator of the universe began His creation with commend "Kun" (be) and the creation came into being "fa-yakun" (there it was). This creation included whatever would come into existence even in future. But the best of the creation of Allah is a man (Ashraf al makhluqad) who is created with the best proportions.³

Allah has said in the Quran about the stages of the man creation:

يَنَأَيُّهَا ٱلنَّاسُ إِن كُنتُمْ فِي رَيْبٍ مِّنَ ٱلْبَعْثِ فَإِنَّا خَلَقْنَكُمْ مِّن تُرَابٍ ثُمَّ مِن نُطُفَةٍ ثُمَّ مِنْ عَلَقَةٍ ثُمَّ مِنْ عَلَقَةٍ ثُمَّ مِن مُضْغَةٍ مُّخَلَقَةٍ وَغَيْرِ مُخَلَقَةٍ لِنُبَيِّنَ لَكُمْ وَنُقِرُ فِي نُطُفَةٍ ثُمَّ مِنْ عَلَقَةٍ لِنُبَيِّنَ لَكُمْ وَنُقِرُ فِي الْأَرْحَامِ مَا نَشَآءُ إِلَى أَجَلٍ مُسَمَّى ثُمَّ يُخْرِجُكُمْ طِفْلًا ثُمَّ لِتَبْلُغُونَا أَلْأَرْحَامِ مَا نَشَآءُ إِلَى أَجَلٍ مُسَمَّى ثُمَ يُخْرِجُكُمْ طِفْلًا ثُمَّ لِتَبْلُغُونَا أَشُدَّكُمْ فَا نَشَآءُ إِلَى أَرْذَلِ ٱلْغُمُولِ أَشُدَّكُمْ مَّن يُرَدُّ إِلَى أَرْذَلِ ٱلْعُمُولِ أَشُدَكُمْ مَن يُرَدُّ إِلَى أَرْذَلِ ٱلْعُمُولِ السَّعَلَى اللَّهُ وَمِنكُم مَّن يُرَدُّ إِلَى أَرْذَلِ ٱلْعُمُولِ السَّعَلَى اللَّهُ وَمِن مَعْن يُرَدُّ إِلَى أَرْذَلِ ٱلْعُمُولِ الْحَيْلَا يَعْلَمَ مِنْ بَعْدِ عِلْمِ شَيْءً وَتَرَى ٱلْأَرْضَ هَامِدَةً فَإِذَا أَنزَلْنَا

³ Abdur Kah Man, Introduction to the Hadith, Kualalumpur: A.S Noordeen, 1991, p: 23

عَلَيْهَا ٱلْمَآءَ ٱهْتَرَّتْ وَرَبَتْ وَأَنْبَتَتْ مِن كُلِّ زَوْجٍ بَهِيجٍ ٥

O mankind! if ye are in doubt concerning the Resurrection, then lo! We have created you from dust, then from a drop of seed, then from a clot, then from a little lump of flesh shapely and shapeless, that We may make (it) clear for you. And We cause what We will to remain in the wombs for an appointed time, and afterward We bring you forth as infants, then (give you growth) that ye attain your full strength. And among you there is he who dieth (young), and among you there is he who is brought back to the most abject time of life, so that, after knowledge, he knoweth naught. And thou (Muhammad) seest the earth barren, but when We send down water thereon, it doth thrill and swell and put forth every lovely kind (of growth). [See 22: 5]

That verse signed that Allah is the Great Creature in the world, there is no Allah but him, until He describes the detail of the human creation before human known it. And Allah given this information to the prophet Muhammad as the last messenger, where is in that time he lived without medical technology. How man came to be from a single drop of liquid and how they were carefully designed, build, fed, and raised in theirs mother. That's all not the work of the blind forces of nature, but the work of an all-Wise and all-Powerful Creator.

Man is Allah noble creation; all of about man said in the Quran include their creation. As far as science developed, man knows theirs body self. The man body is the complicated machine in the world, from the body component until the internal organs are organized with marvelous design, and when examine the design in detail will find more amazing fact. Every part of the body, thought each may seem to be so different from another, is made up of the same material; cells.

The stages of man creation is the process of the cell division and cellular differentiation of the human embryo during early prenatal development or the study of the development of individual before birth. The creation of man is made with the best planning and at different stages.

To understand that verse it needs some interpretation and accordance to the exegesis expansion in modern era there is new exegesis method to interpret scientific verses that calls by scientific exegesis. It's an exegesis study of science to the Quran. Many modern commentators use it and give their different appreciation for it which empties into the "tibyan, i'jaz, ta'ziz functions.

The Quran verses relate to the revelation are very fundamental and however some verses relate to the science crops is interpreting erroneous often, it have resulted in the critics to the Quran by some scientists, although that critic seems true. Some fault translation of words give information which can not accepted by developing of medical science.

The researcher has chosen it to study that verse because the word meaning which given by the commentators have not agree with medical science. Then it needs reinterpretation in order to the medical science is not in conflict with the Quran text with correlate between scientific exegesis and medical science because there some words or terms conflicted each other, resulting in different interpret having different meanings in steps of man creation. Then it needs to analyze to get understanding of the verses which are concerned with scientific and the live reality, because it in fact science is

not contra with the Quran or just the opposite and many verses of the Quran talk about medical science.

Having those describe the researcher was constantly aware of the problems arising from this special situation. This proposal experience will be invaluable in guiding the consideration of the issues and the proposals the researcher intends to make based on this study for the future Islamic studies.

I.2. Identifications of the Problem

The conclusion for identification of the problem from that explanation is the research for this thesis wants to examine about "The Stages of Man Creation in The Quran and Medical Science"

This analysis all of about the scientific interpretation of verses which are relate to the phases of man creation in the Quran from understanding of the text; words meaning; reason of reducing verses; until analysis the explanation scientific commentators of that verses, then compare the inventions of medical science which are related to the Quran verses. This analysis would like to correlate between them; in order to get the good understanding.

I.3. Statement of the Problem

The miracle of man creation in the Quran is one of miracles in medical science. The explanation is the expression or the comprehensive emphasizing for human to getting the evidence but the problem here is that medical science have different meaning to understand the process of man

creation with interpretation of the commentators so it have complicated to understand.

The problems to discuss in his research are:

- 1. How's the scientific exegesis explain the Quran verses about the process of man creation?
- 2. Why the scientific exegesis interpretation and medical science are in contradiction in explain the process of man creation?
- 3. Why there is distance between commentators and medical science?

To answer there questions, the researcher embarked on intensive study of the verses fulfillment of these answers and several outlaying questions.

I.4. Objectives of the Study

The title of this thesis is about the man creation and would like to analyze the verses from commentator views and medical science. Beside that wants to analyze the compatibility of the medical science with understanding of the Quran verses by the commentators. And this is focus in the Quran verses of man creation. To focus the study it needs general and special objectives of the study.

The general objectives of this study are:

- To analyze how the commentators explain the verses of man creation;
- To analyze how the medical science explain the man creation;
- To analyze how the scientific exegesis was affect to the medical science in interpret the verses of man creation.

The special objectives of this study are:

- To find the science practice in reality that agrees with The Quran.
- To look the interpretation verses of man creation in the Quran and see up the extant of this interpretation influence by medical science.

I.5. Significance of the Study

The study is particularly important because it to enrich the knowledge of exegesis study about man creation in the Quran verses. The research has relation with science developing, give understanding to man about his creation. And this research hoped for giving the profit to other research development.

I.6. Data Source

Data source of this research would like take from these literatures, such as:

- a. The sources of primary data are taking from Tafseer al Maraghy, Tafseer al Jawahir and other scientific exegesis books.
- b. The second source of secondary data are taking from interview to specialist womb doctor, then from the medical books, and other books which are studying about the problem which will analyze in this thesis.

I.7. Steps of the Research

Base on place and data sources that will use, this research is library

research not fieldwork and not laboratory research too.⁴ And if next analysis, will many result of fieldwork and laboratory research as comparative variable, the result works have became common theories and considered as axiomatic proof for scientists, such genetic and embryology theory. As Kartini Kartono said this research is interpretation research or complete research, by critic analysis to the data and interpret of result work that done before.⁵

Exactly the writer uses qualitative-descriptive-analysis method, because the accentuating of this research is not from quantitative data but qualitative data. Qualitative research is much more difficult to do well than quantitative research because the data collected are usually subjective and the main measurement tool for collecting data is the investigator himself.⁶ Catherine Marshall, Gretchen B, Rossman said that the fundamental methods relied on by qualitative researchers for gathering information are, participation in the setting, direct observation, in-depth interviewing, document review.

This research report contains the data excerpt, give description of report presentation. That data may comes from interview manuscript, field note, photo, video tape, personal documents, memo or notes and other formal document. In it the researcher analysis data as far as original, it do as someone knit, each part studied one by one. The question is question word

⁴ Marzuki, Metodologi Riset, Yogyakarta: BPFE UII Haninaita, 1995, p; 7

<sup>Kartini Kartono, Pengantar Metodologi Riset Sosial, Bandung: Alumni, 1978, p: 45-46.
Sugiyono, Metode Penelitian Kuantitatif, Kualitatif dan R & G, Bandung: Alfabeta, 2008, p: 213.</sup>

why, what's the reason and how it happened. Therefore the researcher will not get that something is in such condition.⁷

The data that needed in the literature study is taken from it resource by library research, by study and analyze carefully the collecting books which related with the problem and those books will combine with the primer data resource.

This research will use the qualitative methodology, which is produce the descriptive data in the form of written or orally words from person and behavior that can guarded. The technical of this research is by analyzed the problem or collecting the data by interview and reviewing of literature or research of field. It is done by discourse the literature such books of science, document, thesis, exegesis, history and others. The focus of his method is in the purpose of analysis and it result and to get he data and how to analysis it. The analysis data with this method is using inductive descriptive in the other word there was continuity from the first up to the last.

The aim is not to determine the truth about some social phenomenon, rather the purpose of triangulation is to increase one's understanding of what ever is being investigated. This research can build on the strengths of each type of data collection while minimizing the weakness in any single approach.

The most serious and central difficulty in the use of qualitative data is that methods of analysis are not well formulate. There are no guidelines in

⁷ Laxy J Moleong, *Metodologi Penelitian Kualitatif*, Bandung: PT Remaja Rosdakarya, 2008, p: 11

⁸ Ibid. p: 3

qualitative research for determining how much data analysis are necessary to support and assertion, conclusion or theory.

Data analysis is critical to the qualitative research process. It is to recognition, study and understanding of interrelationship and concept in your data that hypotheses and assertions can be developed and evaluated. Analysis of any kind involves a way of thinking. It refers to the systematic examination of something to determine its parts, the relation among parts, and the relationship to the whole. Analysis is a search for patterns.

In fact, data analysis in qualitative research is an on going activity that occurs throughout the investigative process rather than after process.

I.8. Discussion Systematic

Discussion systematic of this study will be explained to the five chapter bellow:

Chapter I: Introduction. As a background of the study to introduce the problems that will be discuss. This chapter contain of: background, identification of the problem, statement of the problem, definition of key term, objectives of the study, significant of the study, data resource, and step of research, the out line of writing.

Chapter II: Scientific Exegesis. This chapter contain of the definition of the scientific exegesis, analysis method of scientific exegesis, then analysis principles of scientific exegesis. This chapter as basic theory which used to taking analyze as a point of measure of the research.

Chapter III: Stage of Man Creation. This chapter contains of the stages of man creation in the Qur'an, and the stages of man creation in scientific concept.

Chapter IV: The Analysis of Data, this chapter contains of the analysis of The Analysis Stages of man Creation in The Qur'an and Medical Science, the analysis of Al Muminoon and Al Hajj, the analysis of man creation in Medical Science, the bond of the Qur'an and Medical Science in Man Creation interpretation.

Chapter V: Conclusion. This chapter contain of conclusion of the study as the answer of the questions in the statement of the problem and the suggestion.

CHAPTER II

SCIENTIFIC EXEGESIS

The Qur'an is the first and the prominent authority in Islam, universe and all everything in it are not the independent realities but it signs of His Greatness and Existence from the Qur'an verses. The Qur'an is not emphasize the beyond knowledge only but it contains the empirical knowledge too. There are 750 verses talking about science. Because of that the existence of scientific exegesis method is one choice to attract scientist attention to make the Qur'an as the object research to development science in this technology era.

Course of scientific exegesis is new relative if compared with other of exegesis which have established like fiqh exegesis. So that many contra in it, according to Mustafa Al Maraghi that the Qur'an not contains from all science but the Qur'an come to men with brought the general basics for whose want to attention science and the practical of it, to know that the Qur'an have material and immaterial level.⁹

And according to Amin Al Khulli firstly that scientific exeges is not firm in lacychology, secondly violate philologist study and pedigree of the linguistic meaning, thirdly the Qur'an learn ethic and religious message include human view about their life's and not about cosmologies. Fourthly it is impossible that the Qur'an lade science theory view which relative changed.

According to Mahmud Syalthut said that commentators interpret the

⁹ Andi Rosadisastra, Metode Tafsir Ayat-Ayat Sains & Sosial, Jakarta: AMZAH, 2007, p: 41

Qur'an with scientific theory and adapt the Qur'an verses to science knowledge theorem which have is false. And still many opinions that refuse scientific exegesis.

But some scholars approve this exegesis, because they have different opinion and specially meaning of it. Ali Iyyazi said that scientific exegesis to the Qur'an often signed with emerge of commentators which relate the Qur'an verses with scientific theory changeable and they take the profit of it and that the Qur'an as guidance book and miracles.¹⁰

There some thesis which explained by exegesis expert about the appearance background of scientific exegesis. Such according to M Quraish Shihab that the factors of background of the scientific exegesis ere:

- 1) There some inferiorly complex in some Islamic scholars. This feeling is resulted by a conflict between Muslim and Western, which is not just in military but in economic, social and knowledge too. Where is Islam in left behind and underdeveloped. And for the compensation of inferiorly complex many commentators and Muslim scientists be open to polygenetic with the Qur'an.
- 2) It resulted by traumatic with history in the past, which is experienced by Europe Christian. Where a whale of conflict happened between the scientists and theirs discovery with church side, which want to defend the doctrines of Old Testament. Then the Muslim scientists anticipate that traumatic repeated with Muslim ethnic. Then the Muslim Scientists won't to indicate the relevancies

¹⁰ Sayyid Muhammad Ali Iyyazi, *Al Mufassirun: Hayatuhum Wa Manhajuhum*, Teheran: Wizarat Ats Tsaqafah Al Irsyat Al Islami, 1373, p:93.

between the Qur'an and knowledge.

According to M. Quraish Shihab too, that factors of emergence of scientific exegesis is not from external only, but from internal too. Where contained in the Qur'an verses (kauniyyah verses) which conductive to have rational minded and scientific in understand the Qur'an verses either or rethought and research the universe. It also motivate to indication the miracles of the Qur'an in knowledge advancement, which rest on rational minded and scientific.

The correlation between the Qur'an text and science will take place property if the study done by systematically and comprehensive. There is text region appeared and understood by development science contemporary and there is science region receive the application properties from the Qur'an text and science are having relation. Before having discussion more, it needs to know the meaning of scientific exegesis linguistic and contextually.

2.1. Definition of Scientific Exegesis

In Arabic language scientific exegesis is called by "tafsir al 'ilmi" some idiom of Qur'an exegesis which is specialize the object studies for scientific verses including the science or social knowledge.

Tafsir word in the Qur'an verse Al Furqan (25):33 have meaning explain or subsection. This meaning is have in mind of Arabic spoken "kasyf al mughaththa" (open a close thing) and tafsir according to Ibn Manzur is disclose and explain the difficult meaning of the text. This meaning is given to tafsir too by

commentators with "al idhah wa al tabyan" (explain and illustrate). 11

This meaning in the Qur'an is sharp with "al haq" word which has had meaning exact truth and absolute. According to that verse the tafsir word is explain or confirmation for all the strangest which are handed by the refuse people (kafir) which are unbelief Muhammad as the messenger of Allah.¹²

The term of exegesis in Indonesian is statement or explanation of the Qur'an verses. Literally, tafsir means, clarification, explanation, and illustration. Then in science Qur'an books that exegesis in etymology is explanation and subsection "And they bring thee no similitude but we bring thee the Truth (as against it), and better (than their similitude) as argument (Al Furqan (25): 33)¹³ and exegesis idiom is using to reveal the reasonable meaning or the secret meaning.

And definition exegesis in terminology is mean of commentator to explain the text meaning which easy to understand by reader or audience, based on capability and mufassir quality comprehension for internal or external (verse) which is readied, until it relevant with reality while or will be face and it have no conflict with the aim or the Qur'an purpose. The term of internal means in all aspect or science which relevant with linguistic and literal side of the text, such as: hakiki-majazi muhkam-mutasyabih mutlaq-muqayyad khas-aam mujmal-mufassar, then the internal term is all aspect which is covered by the text

¹¹ Nasruddin Baidan, *Metode Penafsiran Al Qur'an*, Yogyakarta: Pustaka Pelajar, 2003, p: 39.

^{39.}Andi Rosadisastra, *Metode Tafsir Ayat-Ayat Sains & Sosial*, Jakarta: AMZAH, 2007, p: 39.

¹³ Thameem Usman, *Mehodologies of The Que'anic Exegesis*, Kuala Lumpur: A.S Noordin, 1995, p: 5

apparently such as: asbab al nuzul, naskh-mansukh and makiyah-madaniyyah. 14

The science word comes from English language it means knowledge. But that meant by the term is identical with "kauniyyah term" (about universe). And the meaning of scientific verses which are signed the reality of the universe.

Beside it, the 'ilmy word and other derivatives of it used in the Qur'an globally for the knowledge, include meaning science of nature and humanities, and for the revealed and acquired knowledge too.

The Qur'an sees that the science terminology is not definite just in religion knowledge terminology, but the science meaning in the Qur'an is all knowledge kind include nature, social, humanities, and others knowledge which are used to human.

According to Adz-Dzahabi the meaning of scientific exegesis is an exegesis which determines scientific terms to the Qur'an statements and tries to produce all knowledge and philosophy idea from term of the Qur'an text. And the etymologies meaning from tafsir al 'ilmi is explain or subsections about the Qur'an verses which are connected with knowledge, especially verses about nature and social realities.

And to get the profit of the Qur'an it needs the deep understanding of object studies, so that it needed the understanding of object essence which is looking for and this method called by philosophy though. It means philosophy

Andi Rosadisastra, Metode Tafsir Ayat-Ayat Sains & Sosial, Jakarta: AMZAH, 2007, p: 7
 Muhammad Husain Adz Dzahabi, Al Tafsir Wa Al Mufassirun, Makatabah Mus'ab bin 'UmairAl Islamiyah, 2004, p: 180.

knowledge which accompanied by scientific method in order to getting the science crops which is agree with the Qur'an.

A matter which important one in scientific exeges method is uncovering the explanations or subsection of miracles' and scientific invention in all of knowledge for human being, with constantly hold on to the exact and absolute truth of the Qur'an, as the universal text.

2.2. Analysis Method of Scientific Exegesis

Analysis method that used in scientific exegesis is taken from the expert of interpret and contemporary researcher of the Qur'an, including thematic method that recommended researcher of the Qur'an in Middle East to apply scientific exegesis.

Firstly semantics method, secondly thematic method, and thirdly hermeneutic method, this composition method is complicated each other. From the first method be complement for the second method, and for second method make the third method easily.

a. Semantic Method

This method is the meaning method, and this is study about correlation between some distinguishing linguistic with sign correlation mental process in communication activity.

Semantic is some linguistic discipline about meaning which comes from many sign and possession by it in some idiom and have meaning field. And for meaning field is a set of lexical element which related with each meaning. This correlation is related to advancement or situation of society culture which is pertinent.

b. Thematic Method

This method is some thematic exegesis which discussed chapter or some verses and explain common or specific aim and sign of that verse which interpreted. On the strength of problem which would like to know the solution, it has some formula method of thematic exegesis. This popular method is some systematic which combined by Abdul Al-Hayy Al-Farmawi they are: ¹⁶

- 1. Chose the problem that would be discussed.
- Confine the verses which discuss about the problem, then collect it and research the reduction period
- 3. Arrange that verses in accordance with chronological the verses reduction
- 4. Tell the content of the verses
- 5. Arrange the topics of study in a frame
- 6. Complete the discussion theme dependent on the hadist
- 7. Recite the verses on the strength on the theme.

Hermeneutic Method

Hermeneutic is interpretation, in some years it has popular in the Qur'an exegesis academic in Indonesia, because it has characteristic, such development essence of contextualization from some text which will researched. More then it try to excavate the meaning with horizons consider

Andi Rosadisastra, Metode Tafsir Ayat-Ayat Sains & Sosial, Jakarta: AMZAH, 2007, p: 130.

which covered by the text, this horizons means horizon of text, correction, and authors.

With observe the third mains, it means that hermeneutic method do not ignore dialectic context between text, commentator, and realities in determine the meaning. So from the process of dialogue text, commentator, and realities will produce the contextualization of exegesis.

And it has study area such, linguistic aspect, histories of text composition aspect, realities of commentator period, critic aspect to philology knowledge, linguistic and text. This aspect study will be frame of hermeneutic work as exeges method of text.

2.3. Analysis Principles of Scientific Exegesis

Analyze revelation text different with another; it because revelation as text has meaning and interpretation that relevant in all condition, object, period, and commentator place where is it.

Because characteristic of revelation is life in all condition, so it needed theorems and some principles in order to the text which understanding do not disapprove the cannon and roles of pure text precept.

Basically the Qur'an gives sign for researcher of the Qur'an verses which concerned with scientific knowledge. And some principles that must have by actives of scientific exeges are:

1. Oneness of Allah principle in nature. Realize that Allah is unlimited in

Andi Rosadisastra, Metode Tafsir Ayat-Ayat Sains & Sosial, Jakarta: AMZAH, 2007, p: 146.

- everything and He covers all nature realities. Until the nature as a regularity, unity and compact coordination.
- 2. Conviction realities of external world; understanding other realities which different and do not dependent in human mind
- Conviction to saprophytic (something which could not be clutched by the five sense, existence of supernatural realities) and restrictiveness of man knowledge.
- 4. Understanding science philosophy about the studies which want to research. Science has principle about having the general causality and this principle think out two results. Firstly determinism is every cause needs some result, and without cause impossible to be result. Secondly nature uniformity, which same caused, is following by same result.
- 5. Scientific sign which found in the Qur'an verses are not talk about theology and ritual religion.
- Scientific verses in the Qur'an have purpose for man to believe their Allah. And ought the commentators to have theme until getting the comprehensive study.
- 7. Scientific sign in the Qur'an in universal and globally.
- 8. If there is contradiction between the Qur'an and scientific theory, it must be refused because the Qur'an is Allah revelation, which has knowledge and covered in everything. If have compatibility each other then the Quran is orientation of that theory truth. And if the text is not certain whereas the science is certain, so the text will have ta'wil.

- The commentator of scientific exeges is not making the interpretation as theology precept and not contradicts with the principle and linguistic theorem.
- 10. Activate ratio and capability in some specialization of knowledge that will be interpreted, to know the context between verses and scientific premises to looking for the profit of new orientation in the Qur'an exegesis.
- 11. Balance out between knowledge specialize with commentator capability in explain verse meaning to reveal the guidance of the Qur'an.
- 12. Hold on the essence, substance, and existence of the Qur'an
- 13. The basic of scientific exegesis firstly is the Qur'an and secondly is hadist.
 - 14. Exploit the scientific essence flexible.

CHAPTER III

STAGES OF MAN CREATION

How man develops before they are born has always been a matter of intriguing interest. "Where did they come from?" is one of child's first thoughtful questions. Among primitive people-people in their culture childhood-this same interest was urgent and intense. It is difficult for them, with accumulated heritage of medical science, to realize how completely mysterious a thing bird must have been them.

Before the scientists study and having research about man creation, the Qur'an had explained the process of embryo formed and developed phases of it detail and accurately in 14 centuries. Although this all knowledge have no discovered closely until some centuries later. So that Allah command for whose believes Him to take heart His signs. And in the heaven is your providence and that which ye are promised; And (also) in yourselves. Can ye then not see? (51:20-21)

Man creation and all the aspects which preternaturally is clearly in many verses. Some information's in this verse which in detail have mentioned until it is impossible for man which lived in seven centuries known it.

Allah is called the Creator of the Heavens and the Earth and what is between these, but the Qur'an describes most minutely one of principal moments of that impressive work of creation, namely man's creation. And Allah has signed for man to give all minds to His verses, in order to always thought and optimizes mind function to examine, research the universe.

And it is the comparison stages of man creation between the Qur'an and scientific concept. Is it both of them having different?

3.1. Stages of Man Creation in the Qur'an

The Qur'an has mentioned many topics which invite man to believing. Occasionally the sky, other time the animals and plants are showed by Allah as proof for man. In many verses of the Qur'an shouted out for man to give all mind to the creation process of man self. Man is often remained how man comes to the earth, what stages of man creation.

There are some the Qur'an verses which signed about stages of man creation in the womb but which one completed is only 2 chapters they are:

وَلَقَدْ خَلَقْنَا ٱلْإِنسَنَ مِن سُلَلَةٍ مِّن طِينِ ﴿ ثُمَّ جَعَلْنَهُ نُطْفَةً فِي قَرَارٍ مَّكِينِ ﴿ ثُمَّ جَعَلْنَهُ نُطُفَةً فِي قَرَارٍ مَّكِينِ ﴾ ثُمَّ خَلَقْنَا ٱلْمُضْغَةَ عَلَقْنَا ٱلْمُضْغَةَ عُظَنَمًا فَكَسَوْنَا ٱلْعُظَفَة عَلَقْنَا ٱلْمُضْغَة عِظَنمًا فَكَسَوْنَا ٱلْعِظنمَ لَحَمَّا ثُمَّ أَنشَأْنَهُ خَلْقًا ءَاخَرَ * فَتَبَارَكَ ٱللَّهُ أَحْسَنُ عَظَنمًا فَكَسَوْنَا ٱلْعِظنمَ لَحَمَّا ثُمَّ أَنشَأْنَهُ خَلْقًا ءَاخَرَ * فَتَبَارَكَ ٱللَّهُ أَحْسَنُ ٱلْخَلِقِينَ ﴾

Verily we created man from a product of wet earth; Then placed him as a drop (of seed) in a safe lodging; Then fashioned We the drop a clot, then fashioned We the clot a little lump, then fashioned We the little lump bones, then clothed the bones with flesh, and then produced it as another creation. So blessed be Allah, the Best of creators! (See 23: 12-14)

يَتَأَيُّهَا ٱلنَّاسُ إِن كُنتُمْ فِي رَيْبٍ مِّنَ ٱلْبَعْثِ فَإِنَّا خَلَقْنِكُم مِّن تُرَابٍ ثُمَّ مِن نُطْفَةٍ ثُمَّ مِنْ عَلَقَةٍ ثُمَّ مِن مُضْغَةٍ مُّخَلَّقَةٍ وَغَيْرِ مُخَلَّقَةٍ لِّنُبَيِّنَ لَكُمْ وَنُقِرُ فِي نُطْفَةٍ ثُمَّ مِنْ عَلَقَةٍ لَكُمْ عَن يُرَدُّ إِلَى أَجُلٍ مُسَمَّى ثُمَّ نُخْرِجُكُمْ طِفَلاً ثُمَّ لِتَبْلُغُواْ أَشُدَّكُمْ الْأَرْحَامِ مَا نَشَآءُ إِلَى أَجَلٍ مُسَمَّى ثُمَّ نُخْرِجُكُمْ طِفَلاً ثُمَّ لِتَبْلُغُواْ أَشُدَّكُمْ وَمِنكُم مَن يُرَدُّ إِلَى أَرْذَلِ ٱلْعُمُرِ لِكَيلا يَعْلَمَ مِن وَمِنكُم مَن يُرَدُّ إِلَى أَرْذَلِ ٱلْعُمُرِ لِكَيلاً يَعْلَمَ مِن بَعْدِ عِلْمٍ شَيكًا وَتَرَى ٱلْأَرْضَ هَامِدَةً فَإِذَا أَنزَلْنَا عَلَيْهَا ٱلْمَآءَ ٱهْتَرَّتُ وَرَبَى ٱلْأَرْضَ هَامِدَةً فَإِذَا أَنزَلْنَا عَلَيْهَا ٱلْمَآءَ ٱهْتَرَّتُ وَرَبَى الْمُآءَ الْمَرَّةِ بَهِيجٍ ﴿

O mankind! If ye are in doubt concerning the Resurrection, then lo! We have created you from dust, then from a drop of seed, then from a clot, then from a little lump of flesh shapely and shapeless, that We may make (it) clear for you. And We cause what We will to remain in the wombs for an appointed time, and afterward We bring you forth as infants, then (give you growth) that ye attain your full strength. And among you there is he who dieth (young), and among you there is he who is brought back to the most abject time of life, so that, after knowledge, he knoweth naught. And thou (Muhammad) seest the earth barren, but when We send down water thereon, it doth thrill and swell and put forth every lovely kind (of growth). (See 22:5)

And these some verses which are supported the process of man creation such are Al Fathir: 11; al Mu'min: 67; An Najm: 45-46; Al Waqi'ah: 58; Al Insan: 2; Al Qiyamah: 37-39; Abasa: 17-19; At Thariq: 5-7; Al 'Alaq: 2.

Tanthawi Jawhari¹⁸ said that according to the surah al Muminoon the

¹⁸Tantawi Jauhari (1870-1940) was born in Kift Lowdillah village. He wasa thinker and an intelectual in Egyp more then it He was Islamic Philosopher. When he was child he begun his study in Al Ghar while help his parentsas the farmer. From ther he continous his studu in Al Azhar Cairo then transferred in Dar Al Ulum and finish it in 1893. After he graduated from university he tought in Dar Al Ulum university. He was attracted by Muhammad Abduh's methods in teach espesially in Tafsir. Moreover he was attracted by physic, according to him science physic can be reponsible for misunderstanding that Islam iscontradiction with science and modern tecnology. He wascompare Islamic thought with science of physic.

meaning of "insan" is Adam from "will," digest of wheat from or some of turbid" From the verb "salla" to pull out of something, really means: what has been extracted from something else, then progeny, the best part of something, quintessence etc. While al Maraghi²¹ said that is something withdraw and take of from anything. At sometimes witting, like digest of something as milk-foam and sometime intuitively, like dung or dust²². Then that digest is an extract of clay which is specially chosen Adam. And nothing man knowledge without development of it.

In systematically Muhammad Farid Wajdi explains that according to the Qur'an there are 7 elements in man, for the first is from the soil; secondly from the clay; thirdly from the mud which formed; fourthly from the thick clay which ready to form; fifthly from the clay of mud which formed; then from the clay

In 1912 he teachin Al Jami'at Musyriyat on Islamic philosophy subject, therefore made some innstitute for English language. During his life he active science converences. He spend his time for writing and translating books, some of his books: JawahirAl Ulum, Al Qur'an wa Ulum Al Qur'an, Jamaral Alam, Al Hikmah wa Al Hukama, and his populer book is Al Jawahir Fi Tafsir Al Qur'an.

¹⁹Tanthawi Jawhari, Al Jawahir Fi Tafsir Al Qur'an, Volume 11, Egypt: Musthafa Al Baaby wa Awladah, 1350, p: 4

²⁰Dikr Bakker, Man in The Qur'an, Amsterdam: Drukkerij Holland, 1965, p: 11

²¹Sheikh Mustafa Al Maraghi (1881-1945 c) was born in Maragh the village after which heis called he begun his education in the village school and he had memorized the Qur'an by age ten. Shortly after, he was sent to Cairoto study in Al Azhar, he was studying some of most difficult books then being thoughts by the sheikh of Al Azhar

Al Maraghi was appointed qadiin Donggola in the Sudan butonly two years he was transferred to Cartoum were he ocuppied the second highest judical post in the country in 1907 he returnd to Egyp to take upservice as an inspector of religious endowment. During his period he lerned english and many dicipline of Islamic knowledge. In 1928 when the rectorship of Al Azhar feel vacant, the Egyption prime minister choose pre-collage and college education and three devisions where established and the college label education, one for law, one for religion, and one for the Arabic Language. Then he died in Alexandria on 1948.

Al Maraghi wrote extensivelyon variaty of subjecs in the field ofpolitic, administration, and juriseprudence. Some of this books: Al Hitbah Alslami, Al Wajiyz fi Ushul Al Fiqh, Al Ulum Al Balaghah and the most populer of his books is Tafsir Al Maraghi.

²²Ahmad Mushafa Al Maraghi, Tafsir al Maraghi, Volume 16, Egypt: 1974, p: 7

which formed from the fire and from this fire potency man have trance of devil, the last is spirit which blew to the man body.²³

Then previously also beginning with رُجُّة, then-again consist of the drop, known from the preceding passage, Allah fashioned the extraction "the drop" "the drop" This phrase occurs eleven times in the Qur'an, the Arabic word translated here as a small quantity is nutfat. And it has some characteristic, such والمنتاب أنستاج (mingling) the word أَمُنْتُ is plural, from the singular word مَا مُنْتُ while the word is singular and the plural of it مُنْتُ cursory it seen that the redaction of that word is undeviating, because as the characterize of مَا مُعْمِينَ while Arabic language adapt the characterize which is characterized. The other characteristic which has by مَاءِ مَهِينَ is نَشِيّلِهُ (weak and contemptible) then مَاءِ مَهِينَ is نَشِيّلُهُ (emitte) and مَاءِ مَهِينَ is celection).

Allah put this drop in secure receptacle, في قرار مكين something is strength and that is in the womb. That is called by some place for laying of the drop until pregnancy time in especially temperature standard.²⁷ The womb is covered with the bottom by spine which supported by muscles strongly. The embryo covered by amniotic cavity which produced amniotic liquid, so that the fetus has dwelling

²³Zaik Mubarok dkk, *Akidah Islam*, Jogjakarta: UII Press, 2003, p. 11.

²⁴Tanthawi Jawhari, *Al Jawahir Fi Tafsir Al Qur'an*, Volume 11, Egypt: Musthafa Al Baaby wa Awladah, 1350, p: 89.

²⁵Maurice Bucaille, What is The Origin of Man? Kuala Lumpur: A.S Noorden, 1989, p: 182

²⁶M Quraish Shihab, Mujizat Al Quran: Ditinjau dari Aspek Kebahasaan, Isyarat Ilmiah dan Pemberitaan Gaib, Bandung: Mizan, 1998, p: 167

²⁷Tanthawi Jawhari, *Al Jawahir Fi Tafsir Al Qur'an*, Volume 11, Egypt: Musthafa Al Baaby wa Awladah, 1350, p: 4

place which reserved.²⁸

For the second time it also beginning with A then Allah creates the sperm from this second character into "blood-clot" That word in Arabic language has three meanings first meaning is leech second meaning is something closed and last meaning is blood clod. Al-Raghib Al Ashfahaniy, explain some meaning of this word in Mu'jam Mufradat li Alfadz Al Qur'an formatively to Arabic language is hinging and be jammed together. In Al Mishbah and Al Munir dictionary, the meaning of are is something black like worm in the water, if it drunk by animal it will hinge or sticking in one's throat. Or something clinking at some place, this word literally uses to describe the leech which clinking in the body to sipping the blood of body. But Dr. Muhammad Washfi has different meaning for it according to him that is not blood-clot. The thing is called by which from derivation meaning of relation) because indicate some relation between sperm and ovum when fertilization.

And Allah creates it into مُضْغَةُ "the lump of flesh" as big as something to chew. However Dr. Ibrahim B. Syed presents that the derivation meaning from it is chewed substance or chewed lump.³⁴

²⁸Zakir Naik and Gary Miler, Keajaiban Al Qur'an dalam Telaah Sains Modern, Yogyakarta: Media Ilmu, 2008, p: 140

²⁹Ahmad Mushafa Al Maraghi, *Tafsir al Maraghi*, Volume 16, Egypt: 1974, p: 87

Abdullah M. Al Rehaili, Bukti Kebenaran Al Qur'an, Yogyakrta: PADMA, 2004, p. 42
 M Quraish Shihab, Membumikan Al Qur'an: Fungsi dan Peran Wahyu dalam Kehidupan Masyarakat, 1999, p. 59

³²Harun Yahya, *Keajaiban Al Qur'an*, Bandung: Arkan Publishing, 2008, p. 122

³³Muhammad Washfi, *Menguak Rahasia Ilmu Kedokteran dalam Al Qur'an*, Surakarta: Indiva Pustaka, 2008, p: 77

³⁴Bambang Pranggono, Mukjizat Sains dalam Al Qur'an: Menggali Inspirasi Ilmiah, Bandung: Ide Islami, 2008, p: 118

A short time later Allah creates bones عظام, that lump of flesh created into some kind and untied into some parts, then Allah creates bones from the substance of bones and creates flesh from the substance of flesh while the vitamin spread in blood.³⁵ And it was said by al Maraghi too.

Then Allah creates "flesh" as the garment,³⁶ it means that Allah garmented these newly created bones in flesh. These stages are completed. The flesh is like clothes which infolded the bones, and the bones cells are formed before the flesh cells, this is what is signed by the verse. The two types of flesh are given different names in the Qur'an.

The first-chewed flesh-is called by mudraj, while the second-intact flesh-is designated by the word نثم which indeed describes vary accurantly what muscle .actually looks like³⁷

Allah then brings forth man and this too is in itself another creation, 138 It signs that there something, which is granted to this creature difference with other creatures, because Allah gives them hearing and sight and hearts, as Allah said And Allah brought you forth from the wombs of your mothers knowing nothing, and gave you hearing and sight and hearts that haply ye might give thanks (See 16: 78)

According to surah al Haji that the meaning of ثركب is "dust" as

³⁵Tanthawi Jawhari, Al Jawahir Fi Tafsir Al Qur'an, Volume 11, Egypt: Musthafa Al Baaby wa Awladah, 1350, p: 97

³⁶Ahmad Mushafa Al Maraghi, *Tafsir al Maraghi*, Volume 16, Egypt: 1974, p. 12

³⁷Maurice Bucaille, Asal Usul Manusia Menurut Bibel Al Quran Sains, Bandung: Mizan, 1998, p:220.

³⁸Dikr Bakker, Man in The Qur'an, Amsterdam: Drukkerij Holland, 1965, p: 13.

Tanthawi Jawhari said that our forebear Adam is created from the dust, as you eat vegetation and animals, then animals eat vegetation and vegetation from many factors the dust and so you from dust as the mediator. And this word is also understood by sperm, because the genesis of sperm from man food's either animal and vegetation come from dust.³⁹ Then from it means "mani or the clot" then formation of men self from blood which is growing from food that end in dust and growing by courtesy of that blood of sperm for formation there from. The meaning of word in Arabic language is a driblet which is able witting.⁴⁰

Then from مُحْلَقَةُ وَعَيْرُ مُحْلَقَةٌ "a lump of flesh and it's in chewed" مُحْلَقَةٌ وَعَيْرُ مُحْلَقَةٌ وَعَيْرُ مُحْلَقَةً وَعَيْرُ مُحْلَقَةً وَعَيْرُ مُحْلَقَةً to be formed which not less and flawed. And unformed, or which is complete or incomplete. Al Thabary is right in supposing that the first description refers to the forming of the lump of flesh as the last stage in the development of the embryo and the second description refers to abortion. The word مُحْلَقَةُ take from word خَلَقَةُ which means compose and create. The patron of this word has repeating meaning. Thereby the characterization of مُحْلَقَةً with a signaled that flesh had been created repeatedly with various shapes, so it will take in man shape (baby) with complete organs. Then وَلَقِرُ فِي الْأَرْحَامِ مَا نَشَاءُ time laying of it from the six month till four years

³⁹Sudirman Tebba, *Tafsir Al Qur'an: Ayat-Ayat Seks*, Jakarta: Pustaka irVan, 2006, p:45.

⁴⁰Nanang Gijali M.Ag, Manusia, *Pendidikan dan Sains: Dalam Perspektif Tafsir Hermeneutik*, Jakarta: Rineka Cipta, 2004, p: 108

⁴¹Tanthawi Jawhari, Al Jawahir Fi Tafsir Al Qur'an, Volime 11, Egypt: Musthafa Al Baaby wa Awladah, 1350, p: 4

⁴²Sudirman Tebba, Tafsir Al Qur'an: Ayat-Ayat Seks, Jakarta: Pustaka irVan, 2006, p. 46.

and if it do not growing it refers to abortion. ⁴³ Then at the time fixed it turn out from the womb to be baby, طِعْتًا . ⁴⁴

3.2. The Stages of Man Creation in Scientific Concept

There were many centuries when groping curiosity turned only toward speculation and mysticism. Aristotle's work on embryos is now of significance not because of the information he secured, surpassingly accurate as some f it was. His work is for us rather a symbol of the beginning of the turning of min's mind away from superstition, and conjecture, toward observation. Trough much of the Middle Ages the spark that the better of the Greek and Roman scholars had been attempting to fan the smothered by bigotry and authoritarianism. The comparatively few illustrations which were not copies from classical work were crudely symbolic, like the fifteenth-century drawings purporting to show the possible position of the fetus in the uterus.

But the manner of approach was not the only reason for the lag in the growth of human knowledge of embryology. The early phases of development involve exceedingly minute structure and curiosity and the willingness to learn by observation were not enough. Galen (130-201 A.D), it is true, had learned much about the structure of relatively advanced fetuses and after the stagnant period of the so-called "Dark Ages" Fabricius of Aquapendente (c. 1533-1619) produced a significant treatise, "De Formatu Foetu" which has been made available by

⁴³Tanthawi Jawhari, *Al Jawahir Fi Tafsir Al Qur'an*, Volume 11, Egypt: Musthafa Al Baaby wa Awladah, 1350, p: 4

⁴⁴ did plural atfal are here and in 40: 67 babies; in 24: 41 children who have not yet attained knowladge of women's privy parts and in 24: 59 children who have already reached puberty

professor Adelmann in a beautifully facsimile copy. Bound with a careful English translation and a most interesting account of the life and times of Fabricius, but it was not until toward the close of the seventeenth century when the microscope began to be developed into an efficient instrument that the early stages of embryology could be effectively studied. 45

And then according to scientific concept there some stage's of man creation they are:

1. Inorganic

This is the first stage before life begun. Some of cell produces by some organs; this cell is first component for the making of sperm. Sell contains from many elements such as chlorine salt, this is the important compound then others, it is about 3% from the body weight; then potassium salt this content is less than before; calcium, this is at the bones in phosphor form. This is at the fluids in the body too in magnesium salt form. The calcium salt and magnesium salt are in chlorine, carbon and phosphor form. Calcium contained in teeth too; lithium salt, this residue element a body; and in chime contains chloride acid which formed from hydrogen and chlorine. 46

Those inorganic essence receivables by man body, it perceivable because in man body had identified and organized that inorganic essence accord with the requirement of the body. If it redundant the body will trough it by kidney and then out coincide with the urine, thus the body will be balance

 ⁴⁵Bradley M. Patten, Human Embryology. Third Edition, USA: McGraw-Hill, 1968, p. 1
 ⁴⁶Muhammad Washfi, Menguak Rahasia Ilmu Kedokteran dalam Al Qur'an, Surakarta: Indiva Pustaka, 2008, p. 47

always.47

2. Organic

Then the composition of the organic in the body is:

- a. Protein, this is the cluster of organic element, which compiled from the carbon. Other then it has hydrogen, oxygen, nitrogen, and sulfate. And there is some protein has phosphor.
- b. Grease, it formed from the carbon, hydrogen, and oxygen.
- c. Carbohydrate, this element is compiled from the composer elements of the grease. But the comparison of element value of hydrogen, and oxygen is 1:
 2 if it comparison in water.⁴⁸

3. Sperm

Spermatozoa are manufactured in the testis in a hormonally controlled process known as spermatogenesis. The cells from which the sperm are made are called spermatogonia. They are diploid cells with 46 chromosomes; 44 autosomes and two sex chromosomes, the X chromosome and Y chromosome. The process by which the chromosome number is halved is called meiosis and mitosis.

After the cell having process from meioses and mitosis, than a sperm formed. Sperm are highly differentiated cells wonderfully adapted to their function as carriers of genetic material.

⁴⁷Kiptiyah, Embriologi dalam Al Qur'an: Kajian dalam Proses Penciptaan Manusia, Malang: UIN Malang, 2007, p: 14

⁴⁸Muhammad Washfi, *Menguak Rahasia Ilmu Kedokteran dalam Al Qur'an*, Surakarta: Indiva Pustaka, 2008, p. 48

The sperm is fine in testis of men and human sperm are about 50 μ m long, with a renounced head containing DNA, a middle-piece consisting of spiral sheath of mitochondria, and a flagellum than tail (the prominent part of piece) and end piece.

The spermatozoa could not have ability to move lonely except in sperm liquid. His tail which long help to move until the ovum, and in that time the tail of sperm begin to hid out.⁴⁹

The anterior region of the head is covered by the acrosome which is a membranous bag of enzymes, somewhat skin to the intracellular organelle, the lysosome. One of the acrosomal enzymes, hyaluronidase, is important in dissolving a passage of sperm trough the outer layers of the egg prior to fertilization. The mitochondria of the mid-piece produce the adenosine triphosphate (ATP) needed for the flagella activity of the sperm. ⁵⁰

When the testis ejaculation it's not only eject the spermatozoa but the seminal plasma too. And the mixture of secretions (seminal plasma) and sperm is called semen.⁵¹ This liquid will be neutralization the acidity of the vagina.

4. Fertilization

Many critically between formation and liberation of gametes mature in fertilization. The immediate result of coitus is the deposition of semen in the

⁵¹Ibid. p: 3

⁴⁹Muhammad Kamal Abdul Aziz, Ensiklopedia Keajaiban Tubuh Manusia: Berdasarkan Al Qur'an dan Sains, Yogyakarta: Citra Risalah, 2008, p: 270

⁵⁰JJ Thompson, *Human Reproduction and in Vitro Fertilization*, London: Demensions of Science, 1988, p: 4

vagina (insemination). Then the sperm must take their way trough the uterus and into the upper part of the uterine tubes where fertilization ordinarily takes place.

In comparison with the size of the sperm, the distance they must travel is great, and the route may be beset with chemical hazards in the form of abnormally strongly acid secretions or mechanical obstacles such as a crooked and compressed cervical canal or uterine tubes narrowed or occluded by disease.⁵²

Fertilization takes place in the ampullae of the uterine tube. Sperm have a considerable distance to cover from their point of entry at the cervix and it is likely that only a few hundred of the many sperm (200-500 million on average, though this number can vary greatly) that being the journey will even reach the ampulla. Newly ejaculated sperm can not fertilize the egg: they first must undergo a process of maturation, known as capacitating. This occurs naturally in the uterus and even in simple culture fluids: its nature is not completely clear but involves removal of proteins from the head of the sperm to reveal specific binding molecules underneath and an increase in swimming activity.

Mammalian sperm, unlike those of many animals, do not 'home in' on the egg but rely on chance encounters. When a sperm does meet an egg it passes trough the corona cells, which seem to pose no real barrier, and adheres to the zone. The zone is composed-certainly in mice, and probably in humans -

⁵² Bradley M. Patten, *Human Embryology*. Third Edition, USA: McGraw-Hill, 1968, p. 41

of three glycoprotein types. One of these, ZP3, functions as a specific receptor for complementary moleculus on the head of the sperm, which explains why fertilization of one species by another is unlikely.

Once binding has occurred the acrosome membrane begins to fuse with the outer sperm membrane and the digestive enzymes thus released start to break down the zone. The binding receptor, ZP3, is responsible for initiating this process. Several sperm may bind to one egg and engage in a race to digest their way trough the zone, a process that may take 15-20 minutes in humans. One a sperm reaches the perivitelline space it may swim briefly in it before binding to the oocyte membrane, not by its tip, but by the remaining region of acrosome around the middle of the head. It is then engulfed by the cocyte.

In many invertebrates binding of the sperm to the egg is followed within second by a membrane depolarization, which prevents polyspermy (more than one sperm fertilizing the egg). This 'fast' block to polyspermy lasts about a minuet. During this time, contents into the perivitelline space, where they alter the zone pellucida so that no more sperm can penetrate it — the 'slow' block to polyspermy. It is not yet clear if the 'fast' blocking step occurs in mammals but the slow block certainly does. The cortical granules release an unknown material that alters ZP3 in the zone so that it is not longer able to bid sperm heads.

Fusion also permits the oocyte to complete its second meiotic division, and the second polar body is expelled into the perivitelline space.

The maternal and paternal DNA each contribute to the formation of a pronucleus' the two pronuclei then fuse to form a single nucleus. In humans this process may take as long as 11-12 hours. 53

5. Conversion

The fertilized human ovurn, or zygote, is about 120 µm (0.12 mm) in diameter, which is every large cell by mammalian standards. It remains at the size of the net 2 or 3 days will divide repeatly to form a ball of progressively smaller. The first 24 hours following fertilization is probably spent in the ampula of the fallopian tube, the 2-cells, 4-cells, 8-16 cells pre-implantation stages in the isthmus. The embryo is though to leave the fallopian tube and enter the uterus on the third day following fertilization by which time it has reached the morula stage of development. In other word, the first 3 or so days of life are spent in the fallopian tube and not the uterus as is supposed by many. The morula, which look like blackberry, marks a key point in early differentiation in that cell comprising it have become tightly opposed, with a greater proportion of their surface in contact. This is prelude to the appearance of a cavity or blastocoel within the embryo, and the formation of the blastocyst on day 4. Prior to the formation of the morula, the embryo is somewhat quiescent in a metabolic sense. It derives its energy from the oxidation of pyruvic acid, but does so at a relatively slow rate and is not particularly active in protein synthesis. During this early pre-implantation phase, its activities are controlled to a large extent by messenger RNA from

⁵³John McLachlan, Medical Embryology, New York: Addison-Wesley Publishing Company, 1994, p: 28

the original oocyte. The new embryonic genetic stage, when rates of protein synthesis are similar to adult cells. This molecular information is sometimes mentioned in debate on the question: 'when does human life begin?

By day 5, the human blastocyst is composed of over 100 cells, about 90 of which encircle the blastocoel as the trophectodem, the remainder being clustered together to form the inner cell mass. The embryo proper is ultimately derived from some of the cells of the inner cell mass. The extra-embryonic structures, such as the placenta, are derived from the trophectodem in the other cells of the inner cell mass. The blastocyst remains unattached in the uterine lumen until about the sixth day following fertilization when it begins to implant 54

6. Congealed Blood

Before it can implant, the blastocyst has to 'hatch' from the zone pellucida. Once the zone has been lost, on about day 6, the embryo can penetrate the epithelium of the endometrium and begin to bad down in the storma. Implantation takes about a week. It is day 10-11 before the embryo is completely buried and day 13-14 before implantation can be said to have been completed.

For implantation to be successful, it is obvious that the normal menstrual cycle must be interrupted so as to prevent menstruation and the lost of the embryo. The likely way in which this is achieved in the mother is by

⁵⁴JJ Thompson, Human Reproduction and in Vitro Fertilization, London: Demensions of Science, 1988, p: 21

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reproduction of the hormone human Chorionic Ghonadotrophin (HCG) by the blastocyst. The HCG acts as a signal to maintain the corpus luteum, which releases large amounts of estrogen and progesterone. After about 6 weeks, this function is taken over by the placenta.55

7. Zygote Cell

The formation of the body is of course initiated by the same growth processes which establish the germ layers. It is about 2 weeks after fertilization. The embryo growth begins from the embryonic plate, which continued differential to be three cell layers.⁵⁶

A. Ectoderm cells

The ectoderm cells appear the majority of primordial tissue of the human body and outer epithelium of the body. a). neural tube; b). brain; c). lens eye, inner ear mechanism; d). hair and nails; e). sweat glands, mammary glands, enamel teeth.

B. Mesoderm cells

The important part of mesoderm cells is form myotomes, sclerotomes, dermatomes which are consequently need more elaborate supporting and transporting system. Then it forms the connective tissue and smooth muscle of viscera and blood vessel.

C. Endoderm cells

⁵⁵Ibid. p: 23

⁵⁶Rustam Mochtar, Sinopsis Obsteri (Obsteri Fisiologi Obsteri Patologi), Editor by: Dr. Delfi Lutan, Jakarta: EGC, 2002, p: 21

The endoderm cells produce digestive tube, bronchial tube, liver, pancreas, urinary blander then the primary sex cells.⁵⁷

These three cell layers ere the primary germ layers of the embryo.

The germ layers are of interest to the embryologist from several points of view. The simple of organization of the embryo when it consists of first a single, then two, finally three primary structural layers.

8. Fetus

Fetus period is about three weeks after fertilization until pregnancy. This is indicated by growth of the body quickly and perfecting of organ systems. The vesicle eyes standard out and the hand and bones bud have seen, and then in this period the contraction of herd beat begun. Developing of the body length is so striking in thus period, while the weight body will be seen in second month before pregnancy. But a different striking is relatively of slowed down the head growth.

9. Bones and Flesh

Bones is vascular tissues in which the cells are dispersed in a protein matrix with a large collagen component and calcium phosphate salts crystallized throughout. And bones forms in some ways.⁵⁹

The mesoderm cell which growth in extreme material come closer

⁵⁷TW. Sadler, Embriologi Kedokteran Langman, Jakarta: EGC, 1997, p: 87-89

⁵⁸ Johannes W. Rohen and Elke Lutjen-Drecoll, Embriologi Fungsional: Perkembangan Sistem Fungsi Organ Manusia, Jakarta: EGC, 2009, p: 168

⁵⁹John McLachlan, *Medical Embryology*, New York: Addison-Wesley Publishing Company, 1994, p: 125

together in central and become along bone element which begins with gristle.

Among those elements there is some space, which will be joints. Then the bone will layered with skin which rich in blood vessel as soc and it potential to grow.

In gristle, the change structure is taking place. It permeable water, be chalky and generalized then in the basic substantial of gristle, the storage of calcium is taking place too until form the primary of bone marrow, then from the primary of bone marrow form gristle at last it will grow branch and slow setting.⁶⁰

The system of skeletal growth from mesenchyme which descending from the streak of mesoderm germ such length bone of the body parts. Some of bones like flit-bones and cranial bones had been reinforcement, as well as the costal.

Then concurrently the muscles of bone growing up until cover all the bones at last are developing the leather organ. Firstly the leather compiled of a lining ectoderm and mesoderm which reside under of it. Then some of lining thin from epidermis formed until in layers, it formed in fifth months. ⁶¹

10. Organs

After some tissues of the nerve formed the structure of the embryo, including all its organ system, is considered at a succession of stage. This

⁶¹Ibid. p: 61

⁶⁰Johannes W. Rohen and Elke Lutjen-Drecoll, Embriologi Fungsional: Perkembangan Sistem Fungsi Organ Manusia, Jakarta: EGC, 2009, p: 56

emphasizes the interrelations of the several systems. And separate tracing of each organ system from the appearance of its first primordial to its completed form.

Beside that the formation and primary relations of fetal membranes established too. There are cellular layers extending far beyond the region which the embryo it self develops. These peripheral membranes are service during embryonic life as a means of protection, and as a mean of securing food and oxygen and eliminating waste materials, because they are not in incorporated in the body of the embryo but discard at the time of birth. They are called extra-embryonic or fetal membranes. The extra-embryonic membranes are consequently dependent on establishing intimate relations with the maternal uterine circulation; the allantois and serosa are especially elaborate developed.⁶²

11. Nervous system

The first formation is formation of the neural tube. This formation begin from the primordial mass of cells is its transformation from a superficial plate into a tabular structure lying beneath the rest of the ectoderm become somewhat separated from each other, leaving no trace of their former continuity. It continues in the formation of neural crest, then the brain, until in the sense of organ. While the digestive system form too until perfectly.

Three sources contribute to the tissues of the nervous system are neural

⁶²Bradley M. Patten, *Human Embryology*. Third Edition, USA: McGraw-Hill, 1968, p: 58.

tube, neural crest and a series of localized thickenings (or placodes) in the ectoderm. The neural tube gives rise to the brain and spinal cord. These represent the central nervous system. In addition, axons grow out from the neural tube to innervate muscles throughout the body. From the component of the peripheral nervous system, the neural crest cells produce the sensory component of the peripheral nervous system. Epithelial placodes lying lateral to the main body exist will develop into the sensory cells of the ear and nose and into sensory neurons.⁶³

12. Birth

This is the last stages of man creation, the fetus has completely organ and nervous. And all the organs and nervous system have work perfectly. For nine months the fetus stays in the mother wombs, and it supplied the foods and vitamine from the placenta, it hold out until pregnancy.

⁶³John McLachlan, *Medical Embryology*, New York: Addison-Wesley Publishing Company, 1994, p: 94

CHAPTER IV

THE ANALYSIS STAGES OF MAN CREATION IN

THE QURAN AND MEDICAL SCIENCE

4.1. The analysis of Al Muminoon and Al Hajj surah.

In summing up it may established that in the passage of surah al Muminoon the follow stages in mans creation occur: a) the extraction of clay b) the drop c) the clot d) the lump of flesh e) the bones f) the garment of flesh and g) the other creation.

And in Al Hajj arrive at the following stages in the passage of the creation: a) the dust b) the drop c) the clot d) the lump of flesh e) the infant.

Imam Muslim narrated in his "Sahih" on the authority of Abdullah Bin Masoud that he said: Allah's prophet – Muhammad (PBUH) the truthful and trustworthy, told:

"The creation of each one of you is composed in the mother's womb in forty days, in that (creation) it into such a clot, then in that turns into such mudgha and then Allah sends an angel and orders him to write four things, i.e. his provision, his age, and whether he will be of the wretched or the blessed (in the hereafter). Then the soul is breathed into him. And by Allah, a person among you (or a man) may do deeds of the people of the Fire till there is only a cubit or an arm-breadth distance between him and the Fire, but then that writing (which Allah has ordered the angel to write) precedes,

and he does the deeds of the people of paradise and enters it; and a man may do the deeds of the people of paradise till there is only a cubit or two between him and paradise, and then that writing precedes and he does the deeds of the people of the Fire and enters it".

The second Problem is that at the bottom the explanation stage of man's creation in both of this surah is same. But in Al Muminoon the first stage of man creation is the extraction of the clay whereas in Al Hajj the first stage is the dust. The word thin and turab in the Qur'an comes with analogy meaning. Because human and all creations, chemically consisting from the structures, firstly which are assembled by The Creator and the composition of it are from the chemical essences, such: protoplasm which is fetal essence, and from it forms the cells and tissue of an animal and concerning plants. This fetal essence consists of the component: oxygen, hydrogen, gas, sulphur, phosphorus, calcium, sodium, chloride, iron, copper, etc.

And if the essence of the dust be analyzed, so it will found the same content of structures which have in the extraction of clay.

Then others problem is the difference between lump of flesh in Al Muminoon surah and Al Hajj surah is that in Al Hajj surah more detail and clearly in explain for the lump of flesh to be partly formed and partly unformed. That the first description refers to the forming of the lump of flesh as the last stage in the development of the embryo and the second description refers to abortion.

Then the next difference between Al Muminoon and Al Hajj surah is in the last stages of man creation. In Al Muminoon said for the last stage is the other creation, but in Al Hajj is the infant. Substantively Al Hajj surah comes to be explaining for Al Muminoon surah, because the essence meaning of other creation is to be the infant.

This is same with Prophet statement in Hadis Sahih Muslim, that " when 42 nights have passed over the conception, Allah sends an angel to it, who shapes it (into human form) and makes its ears, eyes, skin, muscles and bones. Then he says 'O Lord, is it male or female?' and your Lord decides what he wish and the angel records it".

After 42 nights (6 weeks) the embryo begins to take the human image with the appearance of cartilaginous skeleton, then the external genitals begin to appear later on (the 10th week). In the 7th week the human image gets clearer with the start of the spread of spread of skeleton. This week represents (between 40 and 45 days) the demarcation line between mudgha and human image.

Then the next problem is that in Al Muminoon surah uses different conjunctions. Sometime "خ" (then) and some other time "خ" which translated by will be. And both of those words used to indicate something happened after other thing, or indicate different level between what's mentioned before which compared with what's mentioned after one of the two words.

But the word-then, usually using to indicate for a long distance or for

a high level, if it compared with word "i". From the context of surah the comprehension for the pressing these two word and is not for indicated time and distance, but these are indicating for the level and remarkableness which so much high one and others.

It means the transition from the drop to the clot, as well as from bones which garmented with flesh then brings fort man, it is an astound transition gone one better then transition of the clot to the lump of flesh or it to the bones likewise from the bones until garmented of flesh.

4.2. Analysis of Man Creation in Medical Sciences

In scientific theory the body compiled from many elements that very same with the element of the clay. Those elements are shape of the man body, and that elements are at the man body in inorganic and organic elements form.

That next stage of man creation is the sperm. Spermatozoa are manufactured in the testis in a hormonally controlled process known as spermatogenesis. The cells from which the sperm are made are called spermatogonia. They are diploid cells with 46 chromosomes; 44 autosomes and two sex chromosomes, the X chromosome and Y chromosome. During spermatogenesis, the spermatogonia are transformed via primary spermatocytes and spermatic to spermatozoa, the whole process taking about 10 weeks. Spermatogonia are replaced by cell division (mitosis) throughout life, with a slight increase in production at puberty.

Then the importance stage is when then starting the fertilization, in the fallopian tube, of an ovule that has detected itself from the ovary halfway through the menstrual cycle. The fertilizing agent is a cell taken from the male, the spermatozoon, tens of millions of which are contained in a single cubic centimeter of sperm. All that is required to ensure fertilization, however, is a single spermatozoon, in other word, and the spermatozoa are produced by the testicles and temporary stored in a system of canals and reservoirs. At the moment of sexual contact, they pass from their place of storage into the urinary tract, and on the way, the liquid is enriched with further secretions that do not, however, contain fertilizing agents. These secretions will nevertheless exercise a considerable influence on fertilization by aiding the sperm to arrive at the point where the female ovule is fertilized. Thus spermatic liquid is a mixture; it contains seminal liquid and various additional secretions. And this process (fertilization) did not explain in the Qur'an, whereas this process is the importance one from stage of man creation, because without this process the man is not created.

The newly fertilized egg is known as the zygote (alaqah). During the first few days after fertilization, the zygote divides several times to form a ball of cells called the morulla. At about day 4 the morula begins develop an internal space and is thereafter described as the blastocyst and this time is called by conversion. This will implant in the wall of the uterus at about day 6.

Towards the end of the second week after fertilization the main body

axis begins to become apparent, though at first in rather subtle ways. The process is called gastrula ion (division), and this stage is therefore referred to as the gastrula. Next, the existence of main body axis is confirmed by the development of the neural tube (corresponding to the brain and spinal cord in the adult). This process is known as neurulation: hence this stage is known as the neurula. By the time neurulation is completed, the embryonic period is about to begin.

During the pre-embryonic period, rapid cell division occurs. The main axes of the embryo, and the progenitors of all the body tissues, are established by the end of these phases. However, this time is marked by strongly regulative behavior. Damage to any part of the concepts has a good chance of being repaired completely: many cells are not committed to a particular fate, and can chance their nature to compensate for any deficiencies. As a result the pre-embryo can be exposed to quite serve environmental insults, and still the resulting embryo may develop unscathed: however, so many cells may be damage that the concept is no longer viable.

At this time the fetus extends from the beginning of the third week to the end of the eighth week. The main organ systems form during this phase, though by its end the embryo is still only some 3 cm long.

This is characterized by many delicate and complex tissues interactions, disturbance of which almost inevitably leads to abnormalities.

As a result the embryonic phases are sometimes referred to as the critical

period. The most complex interactions are usually the most frequently affected; plate and lips, eyes, ears, brain and neural tube and heart are all highly susceptible.

Then the form of the fetus organ until nervous system did not explain the Qur'an clearly again in both of the verses. And this is the one importance parts in man creation.

The fetal period occupies the remaining until the birth. The main events of morphology have been completed by the beginning of this phases but the fetus continues to grow steadily, and the organ system in which functional state. This is particularly true of the nervous system in which functional connections are being established and the skeletal system as cartilaginous precursor elements are replaced by bone. Extensive cell death also occurs in the nervous system and the reproductive system. Abnormalities induced during this period therefore have less dramatic effects on morphology than those in the embryonic phases but may effects growth, formation of the hard tissues and the ordering of neural connections. This last is of particular importance, because it may result in mental dysfunction. Environmental insults during this time are particularly likely to effect growth, the skeleton, and mental functioning.

4.3. The bond of the Qur'an and Medical Science in Man Creation Interpretation.

According to the description between the Quran and medical science views above seem distinguish of man creation. There is How to interpret the

human occurrence. The Qur'an view which is represented by mufassir, base on the Quran and Sunnah principles, and the approach of Arabic semantic, ushuliyyin and knowledge. But in the medical science based on research, facts and the case-study found.

Here is the example how to interpret the human occurrence by the mufassir view. Such word مثالة clay to this word added مثانة it is possible that an extract of clay is meant here. So it is not just clay, but it is the best part of it, which is especially chosen. Here man ought to pay special attention to the fact that apparently the clay begins to come to the fore as the substance of which Allah made man.

sperm. Sperm is produced by testis and it is consisting in four sections: head, neck, body and tail. And it only consists in one cell which has excruciating speed with the tail as the mediator. And what is more it has some characteristic, such مَاءِ دَافِق that sperm is emittance, it means sperm which emitted by semen, at ejaculation sperm mainly from the epididymis, are expelled along the vas deferens and out trough the penis, being joined as they go by copious secretions from the seminal vesicles and the prostate gland. The mixture of secretions (seminal plasma) and sperm is called semen. The sperm themselves contribute less than 1 per cent of semen volume. Then مَاءِ مَهِ الله the adjective despised (mahiyin in Arabic) sould be applied not so much to the nature of liquid itself, as to the fact that it is emitted trough the outlet of the uraniry tract by way of the canal used for

passing urine.

As for the woord quitessence, there are again in the presence of the Arabic word sulalat, to which reffered earlier in the discussion of the formation of man, during the Creation, from the quitessence of clay. It alludes to a thing that is extracted from another thing as note above, and also to the best part of thing, the concept exressed here inevitably makes to think of spermatozoa.

That sperm have enduranc weak, very susceptible to high temperature and acidity of vagina, and that liquid come out of uretra, it means that sperm is weak and copletable. After that is sperm is a drop of thickened fluid, such 1) fructosa 2) lactic acids 3) mitochondria 4) Golgi Aparatus 5) Nucleus 6) flagellur 7) acrosomal enzymes, it means that sperm is a splatter of liquid which mingled. نَبْتُكِهُ which has tested, from many sperm only one which pass examination from the selection.

Next word is blood-clot, the real meaning for this word is blood-clod, because in scientific fact at this time this contains of blood only, and known from the preceding passage. Here it is not explained, however, how exactly man to conceive the relation of the sperm to the clay mentioned before. Allah put this sperm in a secure receptacle; this receptacle must to be sought in the belly of the mother, as becomes clear in the period, or specified in the womb.

The next word is that Allah created a lump of flesh, مُضْعُقَة, also 22:

5, of this clot. The fifth stage mentioned by this passage of the creation is that Allah creates bones, عظم , the plural of عظم , of the lump of flesh, the sixth stage being that Allah garmented these newly created bones in flesh, When all these are completed, Allah then أَحْمَا للهُ brings fort man and this too is in itself another creation, الْحَمَا It probably means the shape of the body or these spirit in the body or possible the faculties of these.

How to interpret the man creation by medical view is described by the research of fertilization process, pregnancy and the birth process research. For instance, Aristotle's work on embryos only toward speculation and mysticism, then Galen (130-201 A.D) had learned much about the structure of relatively advanced fetuses and after the long stagnant period of the so-called "Dark Ages" Fabricius of Aquapendente (c. 1533-1619) produced a significant treatise "De Formatu Foetu" but it not until toward the close of the seventeenth century when the microscope began to be developed into an efficient instrument that the early stages of embryology could be effectively studied. The human sperm was first seem by Hamm and Leeuwenhock in 1677, shortly after ovarian follicles were described by de Graff (1672) Von Baer's important work (1829) gave the foundations of our knowledge of the germ layers in embryos. And with the formulation of the cell theory by Schleiden and Schwann (1839) the foundation of modern embryology and histology were simultaneously laid.

So the Al Quran view in man creation process not only give more information widely but also serve many chances to get new discoveries of

knowledge throughout carrying on scientific research which is expected to reveal secrete of the Allah Laws.

CHAPTER V

CLOSING

5.1. Conclusion

Before man known the way of his creation, Al Quran has explained it. The research of man creation began in 14 century. But the progressing of the research doesn't make man believe what the Quran said. It happened because the explanation of man creation on the Quran is not exactly same with scientific concept. While research development is going on, it means the truth of the research conclusion still could be changed.

It is Allah who created man. By stating this plainly, the Qur'an gives concrete from to the already current thought, that Allah, as High-God or Supreme Being, it is creator of the world, and thus the heart of his listeners is directly stressed of Allah is a thing which, even before they ware aware of it, permanently determined their lives from the first. Man should be deeply aware of His being created and of the dependence of the creature thus implied. He should realize what he really is and whom he faces.

It can not refuse that Allah's power manifested in the creation of man is not restricted to a divine initiative; gut is active in each stages of development. There is no phase in the process of man's origin in which Allah is not concerned creatively.

After having long discussion, this time to known by man that in Al Muminoon surah the question that immediately springs to mind is: How did

all this happen? Other question also arise: How did the clay turn into a living body? How did the genes form and become encapsulated in the sperm? By what system or logic or law do these genes recognize their course and faction, turning a helpless lump of flesh into a full-grown adult, with amazing talents and capabilities? The whole universe attests, in the oldest possible way, to the power of God. Yet, many people continue to dismiss the truth and disbelieve in Him.

The final conclusion from all of discussion is:

- That the importance one to know is that the stages of man's creation according to the Qur'an is the clay the drop (sperm) the clot (congealed blood) the lump of flesh the bones the flesh the other creation (infant). Whereas the stages of man's creation according to the scientific concept is inorganic organic sperm fertilization conversion congealed blood zygote cell fetus bones flash nervous system birth.
- 2. A view of this discussion, the explanation stages of man creation according to the Quran and scientific concept, reflect differences meretriciously. In scientific concept the stages of man creation more are varying than in the Qur'an. Truly the statement of the Quran is not different from scientific concept. The Quran speaks briefly and the scientist elaborates it in detail, hope man always thinking and learning for the way of his creation. Allah is called the creator of the heavens and the earth and what is between

these, and He describes sophisticatedly the impressive work of creation in the Quran namely mans creation. And Allah has signed for man to give all minds to His verses, in order to always thought and optimizes the mind function to examine, research the universe. Base on the discussion above nothing contradiction between the Quran and scientific concept about stages of man creation. Science is only one way to understand the meaning of the Quran and the Quran principle as the guidance how to develop the scientific concept. And by having the science concept, it copes with the Quran verses which related science and technology (kauniyyah). So, the justification to the scientific theory which changed and developed (relative and tentative) is disappeared.

3. There is midway perspective between scientific concept and the Quran. Through this midway perspective, it should be as a bridge between the commentators and the scientists. There is a distance between the commentators and the scientists therefore the differences of their background. The commentator ability is indeed depending on Arabic grammar (semantic, syntaxes and morphology's) asbab an nuzul, nasakh mansukh, ushulliyin, exegesis rules and histories of massager. So the commentator thought is purely base on the Quran text which revealed by Allah to the messenger. Whereas the scientists are able in medical

science only, they take researches as the basic the truth of their thoughts.

5.2. Suggestion

The Quran verses which give many science source for the Moslem to reveal the Quran miracles, and find the new invention of science for Islamic progression. The scientific exegesis method of commentator should take the Quran as the first rule of science progression.

Furthermore the scientist may take the Quran verses (kauniyyah) as the consideration of their research, so that why they can prove the truth of Holy Quran as the evidence the existence of Allah.

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