



SCIENCE + FAITH + WISDOM

SAGI:
THE GREATEST
Experiment

CHRONICLE OF THE SAINT ALBERT THE GREAT INSTITUTE



Thematic Issue (Illuminating Life)

SAGI: The Greatest Experiment

Our Mysterious, Glorious & Everlasting Gift of Life

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Words of Wisdom: There is nothing more meaningful for humanity to reflect upon than its own existence, the wondrous nature of family, and how we may understand life as a mysterious, glorious, and everlasting gift from God. In this article published on the inaugural issue of *SAGI: The Greatest Experiment*, it is my hope to unify our noble endeavor with all who are seeking virtuous science, inspiring faith, and encouraging words of wisdom. May our good work provide hope a reality, illuminate the majesty of life, and seek truth for the glory of God.

GOD THE CREATOR OF LIFE AND THE BEGINNING

The first words of Genesis are very profound for billions of human beings who have pondered upon God the Creator of all things, including the gift of life. These words of Genesis powerfully reveal to us that God is the Author and the Inimitable Designer of Life. God creates through His Word, and we are created in His Image. God gives us the ability to think, speak, see, hear, and share life experiences with one another as well as the opportunity to participate in His Divine Life. Among the many Aspects of God is Perfect Love, which illuminates the True, the Good, and the Beautiful. An important vision and purpose of the Saint Albert the Great Institute for Science, Faith & Wisdom will be to convey knowledge and wisdom which illuminates the Truth, Goodness, and Beauty of Life. As stated by Louis Pasteur, "The more I study Nature, the more I am amazed at the work of the Creator". Likewise inspired, SAGI will seek to illuminate the majesty of life.

SAGI's SCHOLARLY QUEST TO ENDEAVOR TOGETHER

The history of the world reflects the efforts of many scholarly achievements that have positively impacted humanity to enable its rise as a civilization. Now, we live during a time which has a great resource of knowledge and educational faculty to enable a scholarly renaissance, embracing God in our quest to understand who we are and what constitutes a good life. Three quotes that may inspire contemplation of such points on knowledge and education include: "Your Word is a lamp for my feet, a light for my path." (Psalm 119:105); "Knowledge is love and light and vision." (Helen Keller); and "Education is simply the soul of a society as it passes from one generation to the next." (G.K. Chesterton). SAGI will focus upon a project which we have entitled "Illuminating Life!" to establish a multidisciplinary portfolio of scholarly resources to fortify a God-centric education at all levels and the next generation. May we be inspired by the words of Saint Thomas Aquinas, "An angel can illuminate the thought and mind of man strengthening the power of vision."

SCIENTIFIC ODYSSEY PURSUIT OF VIRTUOUS SCIENCE

Throughout the last two millennia, many great discoveries have been made in science that deserve celebration. SAGI will invite expert scholars to share their knowledge of key breakthrough concepts and scientific advancements in this great odyssey. SAGI aims to simultaneously address the underlying bioethical implications of science with both philosophical and theological perspectives. There is nothing more exhilarating than the “eureka moment” to first understand what has not yet been known or demonstrated. Yet, the scientific odyssey must be accountable when great discoveries are not used for good purposes. We must be ready to propose changes to redirect science to do good and avoid harm. SAGI will seek ways for which great science has an alliance with a virtuous purpose to promote the sanctity of life.

Human beings are not God, and there is a need for humility in science (and any scholarly quest). Three quotes that convey such humility include: “*If I have seen further than others, it is by standing on the shoulders of giants.*” (Sir Isaac Newton); “*We don’t know one millionth of one percent about anything.*” (Thomas Edison); and “*The best way to have a good idea is to have a lot of ideas.*” (Linus Pauling). Finally, addressing the determined nature and passion of scientists to embrace virtue, are the inspiring words of Albert Einstein, “*In the middle of difficulty lies opportunity.*” May SAGI support the pursuit of virtuous science as we recognize that God has provided human beings with the gift of intelligence and inspiration to do what is truly good work.

THE GREATEST EXPERIMENT

Scholars may have very different opinions of how to define the word “experiment”. Likewise, the definition of the “greatest experiment” deserves thoughtful analysis in terms of the consequences that may or will emerge because of performing it. Trust and truth are powerful concepts underscoring our relationships with one another. Such are also inherent to science, as there exists powerful technology and know-how to essentially do anything that was once unimaginable only a few years ago. So, may we trust and seek truth in God by the inspiring words of Saint Albert the Great, “*The greater and more persistent our confidence in God, the more abundantly you will receive all that you ask.*” Otherwise, science will be at risk of lacking integrity or being dismissive of veracity as was Pontius Pilate in asking Jesus Christ, “*Quid est veritas?*”.

May we be inspired by God in whatever we do and may we seek to always do good work. The greatest experiment is yet to be achieved. Although we may think of God as the Greatest Scientist and acknowledge life as the Greatest Experiment, God’s Word and God’s Work are not confined to what we may define as the principles of experimentation. God gave humanity the intelligence and abilities to imagine, learn, teach, work, share, pray, love, unite, and behold what might be the greatest experiment. Perhaps, our collective good works for the glory of God may truly constitute the Greatest Experiment? This is my inspired thought to capture your imagination!

DEDICATION OF THE INAUGURAL ISSUE & SPECIAL ACKNOWLEDGEMENTS

This first article and the entire Inaugural issue of *SAGI: The Greatest Experiment* is dedicated to Saint Albert the Great, a multidisciplinary scientist, theologian, and philosopher. This inaugural issue will be focused on the topic of “Our Mysterious, Glorious, and Everlasting Gift of Life”. This inaugural issue will include future articles to be accessible upon editorial review. Thank you to the SAGI Leadership Team, SAGI Scholars, and SAGI Torchbearers who have made special contributions to this inaugural issue through their editing, support, and prayers.



Thematic Issue (Illuminating Life)

SAGI: The Greatest Experiment

Saint Albert the Great: Scientist, Theologian & Philosopher

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Words of Wisdom: "I shall not conceal a science that was before me revealed by the grace of God; I shall not keep it to myself, for being afraid of attracting its curse. What worth is a concealed science; what worth is a hidden treasure? The science I have learned without fiction I transmit with no regret." St Albert the Great, *The Compound of Compounds* [a work on alchemy]

Doctor of the Church

Every Catholic center of learning, however humble, ought to take care to acknowledge the inestimable contributions of those saints who are distinguished by the illustrious title of *doctor of the Church*. Currently the Church recognizes 37 saints as doctors or teachers of the Church.

The doctors of the Church remind us that *God can be known*, even if only in a limited, indeed imperfect way, by the human mind. St Albert the Great, a member of the Order of Preachers, demonstrated, throughout his highly productive apostolate as a scholar and teacher, that God can be known not only through philosophy and theology, but also through the natural sciences. God, after all, is the Creator and Ruler of all things. St Augustine reminds us that every creature therefore bears the traces or "fingerprints" of the Triune God who brought it into being.

A Dominican Friar, Scholar, Professor and Bishop

Today natural scientists, researchers, and indeed all lovers of truth, invoke their patron saint. Albert, now known as "the Great," was a Dominican friar, scholar, professor, and bishop whose life spanned most of the "golden" thirteenth century (1206-1280). As a teacher and mentor of the illustrious St Thomas Aquinas, St Albert was the first to recognize the exceptional brilliance of his fellow Dominican friar. Accordingly, Albert warmly recommended Thomas to the attention of his superiors, thereby advancing the academic career of that towering theological and philosophical mind.

Albert, like his prize student Thomas, enjoyed high social advantages owing to the noble status of his family. He was the eldest son of the count of Bollstädt, a Bavarian title. In fact, Albert was born in the family castle at Lauingen on the Danube, in the duchy of Swabia, southwest Bavaria, Germany.

From his early youth, Albert cultivated an ardent devotion to the Blessed Virgin Mary. Albert shocked his family, however, when he announced his plan to join the Dominicans. The Order of Preachers had received official approbation from the papacy only a decade after Albert's birth, and its friars collected alms through mendicancy. Albert's aristocratic family could scarcely contemplate their beloved Albert joining a band of begging friars.

Nevertheless, Albert persevered in his Dominican vocation, and eventually distinguished himself as one of the foremost theologians of his day. Today this holy polymath is acclaimed as the "Universal Doctor." Albert exercised his teaching apostolate in a wide variety of places: Cologne, Hildesheim, Freiburg im Breisgau, Regensburg, Strasbourg, Paris, and Rome. He even served for a brief period, in the mid-1250s, as personal theologian to the pope. Albert was appointed bishop of Regensburg in 1260 but resigned his see two years later in order to devote himself full time to his teaching and research.

Mentor and Lifetime Friend of Saint Thomas Aquinas

One of the great joys of Albert's teaching career was his discovery of the extraordinary Thomas Aquinas, whom he delighted to teach for four years. An inferior character would have been envious of the great prodigy, and perhaps might even have felt threatened by Thomas' formidable intellect and vast knowledge. Instead, in the tradition of the best educators, Albert did everything he could, in and outside the lecture hall, to foster Thomas' intellectual formation. Albert welcomed the younger Thomas as a colleague and as a friend. Their friendship ended with the death of St Thomas in 1274.

Patron Saint of Sciences and Many Written Works About the Natural Sciences, Logic, Metaphysics, Theology, and Sacred Scripture

Albert himself played a prominent role at the Second Council of Lyons in 1274. He died at Cologne on 15 November 1280 after suffering a loss of memory and a subsequent steep decline in health. Some today speculate that he suffered from a form of dementia not unlike Alzheimer's disease.

By the time of his death, Albert the Great had published 38 books on topics that included biology, botany, human and animal physiology, mathematics, physics, chemistry, alchemy, mineralogy, geography, and astronomy, as well as logic, metaphysics, theology, and sacred Scripture.

Albert brought to his study of theology a great love of the natural sciences; hence after Pope Pius XI canonized him and declared him a doctor of the Church in 1931, his successor, Ven. Pius XII made St Albert the heavenly patron of the natural sciences. Owing to his astounding array of interests and expertise he now enjoys the epithet of "universal doctor."

The Hand of God in All Wonders of Nature and Inspiring Faith of Scientists

It is good for us to see, as Albert so eminently did, the hand of God in all the wonders of nature, for it was the hand of God which formed all things and brought them into being. For Christians there is no quarrel or conflict between faith and science. Contrary to the positions of skeptics and fideists alike, faith and reason are not mutually exclusive. Indeed, truth itself is the aim and the governing principle of both faith and reason.

The Church prays that scientists may see the hand of God at work in the creation which, in His mystery, He has summoned into existence. The more diligent the scientist, the more

attentive he or she must be to the overwhelming mystery of all that God has called into being. Divine mysteries certainly excel our understanding, but they do not contradict it. We therefore should apply ourselves with diligence and zeal to all the branches of learning available to us. If we are attentive to what our eyes see and our ears hear, we may well discover more profoundly the God who sustains everything in being and who wants us to come to the knowledge of Him and to be drawn into His eternal love.

The Logo of Wisdom that Reflects Virtue, Truth, and Torchbearer for All

The logo of the St Albert the Great Institute features a half-length portrait of St Albert framed by a hexagonal prism, rather like a window. The hexagonal window suggests the cell within the comb of a honeybee, a creature known for its industry and associated with perennial wisdom. Both virtues aptly reflect the character of Albert the Great. Emerging from this symbolic window, the saint wears the white tunic and black cloak of the Dominican habit and is crowned with the miter of a bishop. With the quill in his right hand he transmits his thoughts in a book, emblematic of his scholarship, while his left hand holds aloft a torch of truth, in the light of which Albert carried out his research. Not only does the saint use the torch for his own purposes; he extends it for the benefit likewise of the viewer. This gesture exemplifies the motto of the Dominicans: *Contemplare et contemplata aliis tradere* [to contemplate and to hand on to others the fruits of contemplation].

The torch alludes to a wondrous vision closely associated with the origins of the Dominican Order. In sacred iconography, St Dominic Guzman (1170 to 1221), the founder of the Order of Preachers, is frequently depicted with the hagiographical attribute of a dog bearing a torch in its mouth. Sometime before Dominic's birth, his mother, Bd Juana of Asa, had a dream in which she gave birth to a dog which ran through the world with a flaming torch in its mouth. Disturbed by this dream, Juana sought guidance from the abbot of the monastery of St Dominic of Silos. The abbot interpreted Juana's dream as a message that the child that she was to bear would bring the light of the Christian gospel throughout the earth. The Order of Preachers came to be nicknamed "the hounds of the Lord" [*Domini canes*], who, like untiring sheep dogs, would protect the Lord's flock from error and enemies of the Faith.

St Albert the Great, in his day, took up the torch of Truth [*Veritas*, another Dominican motto], entrusted to him by his ecclesiastical superiors. Lovers of the Truth can themselves participate in the apostolate of the St Albert the Great by bearing the torch of Truth in their respective missions, projects, and endeavors. Living in and by the Truth ennobles every human enterprise. Moreover grace, which is a sharing in the divine life, elevates each work to the level of the supernatural.

Under St Albert the Great's influence, torchbearers can themselves grow in wisdom, knowledge, and holiness while sharing the light of Truth with colleagues, partners, and students. Albert's example of industry, fidelity, and sanctity may inspire creativity and joy in the investigation of Truth in a variety of areas, while his heavenly intercession may fortify us in persevering in the path of virtue and ethical responsibility.



Thematic Issue (Virtuous Science)

SAGI: The Greatest Experiment

What is Virtuous Science?

James Brown, Ph.D.

SAGI Director, Virtuous Science

Words of Wisdom: All of us should strive to be virtuous in our work. Proverbs tells us “The just walk in integrity” (20:7), but the complexities of the modern world and science can make this walk both confusing and challenging. What does it mean to do virtuous science? We examine the definition of virtuous science in different contexts and review how various religious groups think of the concept. We are called to think, study, and pray to discern the best moral path for our scientific work and the goal of the St. Albert the Great Institute is to support those who seek to elevate virtuous science.

A HUMBLE APPROACH TO VIRTUOUS SCIENCE

The Saint Albert the Great Institute (SAGI) has an incredibly bold, aspirational mission that both inspires and humbles me. I am honored to participate as the Director of Virtuous Science, and I have been occupied by a particular part of the mission — the “cultivation of the virtues of science”. As we begin our journey, we must seek to understand what we mean by virtuous science. It is my hope that as the Institute grows, we will continually examine our mission, what it means in the world, and how best we can fulfill it.

As is often the case when I begin to think about a topic, I quickly realize that I'm not as smart about virtuous science as I thought I was. The simplest concept is often the best place to start, so I humbly began with the dictionary definition of “virtue”. The common theme in definitions is the concept of a standard, whether of morality, excellence, social value, or other similar desirable quality. A standard requires judgment; either a behavior or object achieves a standard or it does not. Achieving as a standard may not be a purely binary question and a hierarchy may exist: some behaviors or objects are closer to the standard than others. As we begin to think about virtuous science and the basic definitions of the words, we immediately find ourselves counter to the culture. Judgment is often regarded as bigotry, and standards a means of oppression. If the definition of the concept itself elicits a hostile reaction, we can only imagine the challenge of pursuing it — hence the need for the SAGI!

A TREK FOR WAYS TO DEFINE VIRTUOUS SCIENCE

An increasingly popular step these days in researching a topic is to ask one's favorite artificial intelligence. I asked Microsoft Copilot “What is the definition of virtuous science?” and it dutifully provided the following response:

Virtuous science refers to the application of **moral and intellectual virtues** within the realm of scientific practice. These virtues play a crucial role in shaping scientific theories and methodologies.

Relative to this definition, one may delve into this concept further to define the moral and intellectual virtues with respect to science as follows:

1. **Moral Virtues in Science:**

- **Honesty:** Upholding truthfulness and transparency in research.
- **Integrity:** Adhering to ethical standards and avoiding misconduct.
- **Open-mindedness:** Willingness to consider diverse perspectives.
- **Fairness:** Treating colleagues and subjects equitably.

2. **Intellectual Virtues in Science:**

- **Testability:** The ability to subject hypotheses to empirical testing.
- **Empirical Accuracy:** Ensuring that scientific claims align with observed data.
- **Simplicity:** Favoring simpler explanations when multiple options exist.
- **Unification:** Striving for theories that unify diverse phenomena.
- **Consistency:** Avoiding contradictions within a scientific framework.
- **Coherence:** Ensuring internal logical consistency.
- **Fertility:** The capacity of a theory to generate new insights and hypotheses.

These above virtues guide scientists in their pursuit of knowledge, ethical conduct, and the advancement of human understanding.

These all seem like reasonable virtues that one would want to guide one's "scientific practice." There is certainly overlap with Judeo-Christian concepts from the Ten Commandments (thou shalt not bear false witness) and the deadly sins (e.g., pride, envy). Armed with a general definition of virtue as well as a starting point for specific virtues applied to science, the next step, common to any scientific endeavor, is to understand what prior work has been done in the field.

Microsoft Copilot's definition of virtuous science did not include references to any work in the field, and it was limited to essentially dictionary definitions. I took an "old school" approach and did a simple internet search on "virtuous science", and the results provided me with helpful websites. These included [The Virtuous Scientist Project](#) at the University of Notre Dame. The admirable goal of the "project is to develop a program to ensure scientists in training are made aware of the intellectual virtues during their undergraduate and graduate education." Their focus on intellectual virtues explicitly presented in their list of exemplars and course descriptions — attentiveness, carefulness, courage, honesty, humility, open-mindedness, thoroughness, tenacity, and wonder — is more concerned with what Copilot would call intellectual virtues and less concerned on the moral virtues. This is likely because moral virtue would be addressed more generally in other courses and departments at an institution like the University of Notre Dame.

There are several other sources that discuss virtuous science. The journal [Science and Engineering Ethics](#) is "an international, multidisciplinary journal dedicated to exploring ethical issues associated with science and engineering, covering professional education, research and practice as well as the effects of technological innovations and research findings on society." An article from this journal, "[Developing a Scientific Virtue-Based Approach to Science Ethics Training](#)", addresses intellectual virtues along the lines of *the Virtuous Science Project*. A more recent publication "[How Do Scientists Perceive the Relationship Between](#)

Ethics and Science? A Pilot Study of Scientists' Appeals to Values", although citing values, focuses on the *conduct* of scientific research. "Virtue and the Practice of Science: Multidisciplinary Perspectives" is a collection of essays that examine virtues through time, "everyday" considerations, scientific education, virtue frameworks, and looking to the future. Like the *Virtuous Scientist Project* and *Science and Engineering Ethics*, its focus is on intellectual virtues and how science is executed.

While SAGI is not exclusively Catholic, its namesake reveals the Catholic influence on its founding and current membership. The most notable group of Catholic scientists is the Society of Catholic Scientists (SCS). Less than a decade old, "The Society of Catholic Scientists is an international organization founded in June of 2016 to foster fellowship among Catholic scientists and to witness the harmony of faith and reason." The SCS further states:

The Society of Catholic Scientists is an answer to the call of Pope St. John Paul II that "*members of the Church who are active scientists*" be of service to those who are attempting to "integrate the worlds of science and religion in their own intellectual and spiritual lives."

In supporting its mission, SCS articles published on its website are mainly apologetic in nature. They address topics such as extraterrestrial intelligence, evolution, and transubstantiation. This is certainly in the realm of virtuous science, as all virtuous scientists should defend the faith and use their talents to show the harmony between God's creation and what we discover when we seek to understand it.

SAGI's mission "cultivates the virtues of science" and is aligned within the moral and intellectual virtues as defined by Copilot and faithfully pursued by groups such as *The Virtuous Science Project* and the Society of Catholic Scientists. Also, SAGI's mission "advances the power of faith and proclaims the truth, all for the glory of God" and therefore extends beyond these definitions of virtue. Copilot's virtues and the groups pursuing them focus on *how* science is done; they do not address *what* science should do. In the context of the virtuous science that SAGI pursues, questions will not be limited to how experiments are conceived, developed, and executed or how data is collected, interpreted, and presented. SAGI will also ask the most challenging questions — what experiments should be conducted and what data should be generated.

One organization that addresses the question of what science should do is the National Catholic Bioethics Center (NCBC) which "provides education, guidance, and resources to the [Catholic] Church and society to uphold the dignity of the human person in health care and biomedical research." The NCBC focuses on the practice of medicine and provides ample resources to support moral and ethical decisions in biomedical research. Another resource is the journal *First Things*, which describes itself as "America's most influential journal of religion and public life" and publishes insightful articles on the morality of scientific advances that can inform the conscience. SAGI will "create a renaissance of science and faith" by synthesizing these and similar resources together with the expertise, experience, and devotion to God of its members into new ideas, collaborative discussions, and original publications that engage the scientific community. SAGI will directly address the hard questions, like "What should we be doing to give glory to God?"

There is no more important moral imperative than acknowledging the value of God's highest creation, human life. All decisions must be made in the context of this highest value. Navigating scientific advances and cultural forces to make the wisest moral decision is complex and often requires careful consideration of many factors that can overwhelm

individuals who must make decisions. Recent controversies regarding *in vitro* fertilization (IVF) show the conflict between a desire to have a family (a moral good), and a method that achieves it which invariably results in the killing of embryos (a moral evil). Scientists can face more nuanced decisions — if a product or service one is developing can be used for IVF or other immoral purposes, but can also be used for virtuous intentions, is it morally permissible to create it? Karyotyping is commonly used to examine chromosomes for abnormalities. A Catholic colleague of mine worked for a company that did this testing, and he knew that in most cases the information would be used by parents to decide whether to abort a child. Yet, he was just running a test and providing data. What is his moral obligation? He eventually quit his job as the moral implication was too much to bear.

The Church has provided some advice on these topics that can apply to scientists, such as the Vatican document "Instruction *Dignitas Personae* on Certain Bioethical Questions." In the case of using biological material of illicit origin, the document addresses "people of good conscience involved in research" and their "duty to refuse to use such "biological material" even when there is no close connection between the researcher and the actions of those who performed the artificial fertilization or the abortion." It further states "in organizations where cell lines of illicit origin are being utilized, the responsibility of those who make the decision to use them is not the same as that of those who have no voice in such a decision." To coin a phrase, the devil is always in the details. How does one make the proper moral decision when faced with a research project, selling a service, or a collaboration with colleagues that involves material of illicit origin?

A SPECIAL MESSAGE

The purpose of SAGI is to elevate virtuous science. We will address all these questions and more, supporting those who face them and those who may suffer because of their decisions. SAGI members will help one another and provide witness to truth, goodness, and beauty in science. A mainstream cultural answer to the question "*Quid est veritas?*" is often "*Non est veritas*". Contrary to this nihilistic proclamation, SAGI will instead stand with Saint Albert the Great and with Jesus Christ as He proclaims, "*I am the Way, the Truth, and the Life.*" (John 14:6).



Thematic Issue (Inspiring Faith)

SAGI: The Greatest Experiment

March the Month of Saint Joseph

Fr Neil J. Roy, STL, Ph.D.

SAGI Chaplain & Director, Inspiring Faith

Words of Wisdom: The month of March is dedicated to St Joseph, the chaste spouse of the Blessed Virgin Mary and the foster father of our Lord Jesus Christ. Little is known about this humble carpenter from Nazareth who placed himself completely at the service of the Virgin Mother and her divine Son. The few details of St Joseph's life and mission recorded in sacred Scripture are limited to the Infancy narratives in the Gospels of Matthew (1:16-25; 2:13-23) and of Luke (1:27; 2 *passim*; 3:23).

A CARPENTER OF ROYAL LINEAGE & HEAD OF THE HOLY FAMILY

Although descended from King David, and, therefore, of royal lineage, St Joseph did not enjoy the luxuries that his royal background might have suggested and perhaps even warranted. Joseph led his life in the obscurity of the northern region of Galilee, not in the religious and political hub of Jerusalem. He labored as a carpenter and builder by the sweat of his brow and the skill of his hands. Joseph's unique vocation was to serve as a chaste spouse for the Virgin Mother of God, Mary Most Holy, and as the putative father of Jesus Christ, the Son of God who was conceived by the power of the Holy Spirit.

As the head of the Holy Family at Nazareth, St Joseph strove to provide daily sustenance and secure shelter for his sacred charges. According to the divine economy or plan, Jesus and Mary were the very reasons for Joseph's existence, and, consequently, they formed the center of his life. He lived for them and rejoiced in their presence. This daily familial contact with Jesus and Mary afforded Joseph ample fruit for contemplation and constituted a constant source of singular grace for him, the dedicated servant.

Despite Joseph's industry and diligence, the Holy Family was not affluent. At the time of the great census decreed by Caesar Augustus, Joseph went with Mary to Bethlehem for the enrollment, they had to settle for a stable as their lodging (Lk 2:4-17). When it came time to present the Christ Child in the Temple at Jerusalem, the Evangelist Luke points out (Lk 2:24) that St Joseph provided a pair of turtle doves – the offering of the poor.

OBEDIENCE TO DIVINE WILL & PATRON SAINT OF THE CHURCH

The Gospel of Matthew records that St Joseph surrendered at once to the Divine Will, by relocating from Israel to Egypt in order to rescue the Child Jesus from imminent peril to his life (Mt 2:13-15). This meant uprooting himself altogether from his cultural heritage and personal history as well as undertaking the daunting task of reestablishing himself personally and professionally in a foreign and often hostile land. Nevertheless, Joseph sought first the Kingdom

of God, and he took the Child Jesus and His Holy Mother to Egypt, until he was told in a dream about the deaths of Herod and those who had sought the life of the Infant Savior.

A "lover of poverty" and a "model of all who labor," as he is acknowledged in his Litany, St Joseph displayed the humility that God loves and rewards abundantly. Like his namesake, the patriarch in Genesis (37; 39-50) whom Pharaoh appointed viceroy of Egypt, St Joseph was placed by God at Nazareth as "lord of His household and Prince over all His possessions" (Ps 104/105:21). In 1870, Bd. Pope Pius IX (r. 1846-1878) extended this scriptural analogy by declaring St Joseph the principal patron saint of the Church. By this official proclamation, Pio Nono implored the protection of St Joseph's intercession for the universal Church at a time when the hostile forces of the Risorgimento threatened the spiritual and temporal authority of the Church in the Italian peninsula.

St Joseph enjoys two feast days on the liturgical calendar. His principal feast occurs on 19 March. Since this feast nearly always falls in the penitential seasons of Lent or Passiontide, the Church offers a second feast, that of St Joseph the Worker, which takes place in the Easter Season. This latter feast ranks of the first class in the classic form of the Roman rite. In the calendar revised in 1969, St Joseph the Worker is observed as an optional memorial.

A SPECIAL MESSAGE

As a model of the interior life, St Joseph is aptly invoked during the season of Lent, when the Church prepares for the celebration of the paschal mystery of Our Lord Jesus Christ. His quiet meditation on Jesus and Mary encourages us keep these figures before our eyes in prayer and to follow them faithfully on our pilgrimage through Lent to the Easter season, flowing with milk and honey.



Thematic Issue (Inspiring Faith)

SAGI: The Greatest Experiment

St. Anthony of Egypt, Abbot, Confessor (250-356)

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Words of Wisdom: In a church building crowded with many members of the faithful, the Gospel is proclaimed before, and heard by, most of the congregation. Nevertheless, there may be a few people in that gathering who hear something in the Gospel or the homily that they had never before noticed or heard in quite the same way. By some mystery of God's generous grace, they hear the words of the Gospel speaking to them in a personal and direct way, such that they had never before experienced. Consequently, significant conversions take place amidst the sacred liturgy.

A RICH YOUNG MAN WHO WAS GREATLY INSPIRED BY CHRIST'S WORDS

One such conversion to a deeper Christian life took place when a young man of eighteen years named Anthony, who was from a wealthy and highly prosperous family near Memphis in Egypt, walked into church one day and heard from the pulpit the words of Our Lord: *"If thou wilt be perfect, go, sell what thou hast, give the money to the poor; and come follow me. And thou shalt have treasure in heaven."* These words originally had been spoken to a rich young man who, sadly, turned away from the Divine Master's challenge and invitation. The full account occurs in Matthew 19:16-26.

However, the rich young man Anthony heard those words as though the Lord had addressed them directly to him. Anthony had been considering for some time the dialogue between Christ and the rich young man in reference to his own situation. When Anthony heard these words being proclaimed as he entered the church on this occasion, he took it as a confirmation of a generous impulse stirring within him. He now knew that he had to answer this calling, this vocation.

Anthony's parents had died six months earlier, leaving Anthony and his younger sister orphans. Anthony was now responsible for both raising and educating his sister. He therefore entrusted her to the care of nuns in a local convent and provided for her future. As for himself, Anthony left his comfortable world, sold his land and property, and went out to the edge of his city to live on his own.

He lived first in a cemetery to test whether he could endure a life of loneliness. There he faced terrible temptations, particularly of the flesh. The constant reminder of the shortness of life provided by the tombs in the cemetery helped him to overcome these trials. In a vision, an angel encouraged Anthony to persevere and to live in great austerity. Anthony prayed the

psalms faithfully each day; he ate only bread and water once a day; he slept on the bare ground.

Eventually, by 285, Anthony opted for greater solitude and moved to an abandoned fort on a nearby mountain. For twenty-five years he led a life of prayer and peaceful solitude holding fast to a strict routine and diet. Other like-minded men who heard of Anthony's austere lifestyle came to live at the base of the mountain and ascended it to ask the saint for advice. These men formed the first Christian monastic community in the year 305, just as the persecution of Diocletian was distressing the Church. They took vows of poverty, chastity, and obedience to their spiritual father Anthony, who served as their first abbot.

The great doctors of the Church recognized in simple souls like that of St. Anthony of Egypt, “manifestations” or “epiphanies” of Christ’s life in their own day. They identified within the saints living “icons” or “images” of Christ present in the world.

A KINDRED SPIRIT OF ANTHONY — ST ATHANASIUS OF ALEXANDRIA

St Athanasius of Alexandria (296-373), the great champion of Catholic orthodoxy against the threat of Arianism, found within Anthony of Egypt a kindred spirit in terms of his love of theological orthodoxy and his zeal for holiness. Athanasius intuited, moreover, the peculiar genius of Anthony for living the religious life not just as an anchorite, but as a leader of other monks. Athanasius, who himself suffered exile from the See of Alexandria no fewer than five times, sought out Anthony in one of these periods; Athanasius invited Anthony to confront a gang of Arians with no preparation other than that which Anthony's austere life of prayer and spiritual reading of the canonical Scriptures (especially the Psalms and the Gospels) already afforded.

Athanasius was delighted by the way that this simple and humble man, Anthony, defeated the sophistries of the Arians by sharing with them the insights he had received directly from God Himself. Spiritual authors refer to this kind of knowledge as *docta ignorantia* – ignorance informed or instructed by divine grace and insight. Anthony was without formal education and worldly wisdom. Yet, from his very youth he had surrendered himself completely and without reserve to the life of contemplation and asceticism, dwelling in the wilderness away from the hurly-burly of social life and temptations to tepidity and corruption.

Anthony transitioned from life as a hermit to a monk in community, and, ultimately, as an abbot, who was sought out by many for spiritual advice and counsel. This likely was never Anthony's original plan for his own life. He merely allowed God's Will and the needs of the Church to direct his path.

Anthony lived to a ripe old age; he died on 17 January 356 at age 105. His biographer St. Athanasius points out, for the benefit of those who fear mortification and ascetic practices, that Anthony was in excellent physical condition at the time of his death. His regularity of life and ascetic diet had only enhanced his health; they did not impair it.

Athanasius' *Life of Anthony* served for centuries as the standard manual for ascetics, and ushered in a genre of hagiography which was imitated by St. Jerome for St. Paul the Hermit, by St. Gregory the Great for St. Benedict of Nursia, and by St. Bonaventure for St. Francis of Assisi. Each of these doctors of the Church pointed to simple souls taught by the Holy Spirit as the best examples of the highest holiness.

THE INSPIRING LIVES OF THE SAINTS AND AN OPPORTUNITY TO BECOME LIVING BRANCHES OF SO GREAT A VINE AS CHRIST (JOHN 15:1-11)

The lives of the saints serve as great resources of information and, moreover, inspiration. It is a worthy custom to read the life of a saint each day of the calendar year in order to both grow familiar with our forebears in the faith and be inspired by their example to do the will of God in our own personal circumstances. Butler's *Lives of the Saints* remains quite popular, but scholars, particularly of the Middle Ages, will profit by a yearlong reading of James of Voragine's *Golden Legend*.

Lent affords readers an ideal occasion to select the biography of a saint for deeper consideration. St. Athanasius' *Life of Anthony* remains a classic that every student of Catholic culture ought to read. Like Anthony himself, the biography is simple and straightforward. Athanasius wrote it in plain language. For centuries Christians have been reading this life of a saint by a saint with insight and great spiritual profit. Athanasius points out that, after the lapse of twenty years in the desert, "Anthony was 'thoroughly immune to the vanities of the world, like a man unswervingly governed by reason, established in inner peace and harmony.'"

Anthony did indeed find treasure in heaven and left an outstanding example of the joy found by one who listened to the voice of the Lord and who allowed Christ to lead him on a path scarcely planned by himself, a path leading to the riches of the life of God. Anthony did not fear death. By mortification and that spiritual discipline known as *ascesis*, he had died daily to himself, and had lived exclusively for God's good pleasure. With even a fraction of such detachment, Christians today can likewise overcome their deepest fears, and live peacefully in the palm of God's hand. Then they become living branches of so great a Vine as Christ (cf. John 15:1-11).

FURTHER READINGS ON SAINT ANTHONY

The Life of Anthony by St Athanasius is easily obtained online at New Advent. A convenient hard copy is *Athanasius: The Life of Anthony and Letter to Marcellinus*, Edited by Robert C, Gregg (New York: Paulist Press, 1980).



Special Feature (SAGI Torchbearers)

SAGI: The Greatest Experiment

INVITATION TO BE A TORCHBEARER FOR ILLUMINATING LIFE!

We welcome you to join SAGI and our *raison d'être* to be a unifying force with worldwide outreach and inspiration for sharing good works together!

SAGI LEADERSHIP — OUR INAUGURAL TEAM & BUILDING FOR THE FUTURE

SAGI has a dedicated executive team for its inaugural launch since the Feast Day of Saint Albert the Great. Our team includes Tomi K. Sawyer (President & Chief Torchbearer), Jeffrey M. Geniesse (Director, Illuminating Media), James Brown (Director, Virtuous Science), Fr Neil J. Roy (Chaplain & Director, Inspiring Faith), Fr Richard Cannon (Chaplain & Director, Seeking Wisdom), Don Orrico (Director, Gifts for Life), Colin M. Gifford (Director, Life Art), Thomas K. Sawyer (Editor, Torchbearer Publications), Jonathon R. Sawyer (Manager, Torchbearer Initiatives), and Danielle Molinari (Manager, Torchbearer Network)

We are currently engaging expert scholars to join our team as SAGI Advisors for science (e.g., chemistry, biology, physics) and its affiliation to both technology and medicine as well as theology, philosophy, bioethics, and education.

SAGI SCHOLARS ADVISORY BOARD & CHRONICLE — WORDS OF WISDOM

SAGI will establish a network of expert scholars across disciplines to share words of wisdom embracing knowledge, reverence, and truth. Illuminating Life, Virtuous Science, Inspiring Faith, Seeking Wisdom, SAGI Torchbearers, Theocentric Education, and Endeavor Together will be key thematic issues and special features of our SAGI Chronicle,

SAGI TORCHBEARERS WORLDWIDE — UNIFYING ALL TO ENDEAVOR TOGETHER

We invite SAGI Torchbearers to participate in our initiative entitled “*Endeavor Together*” and share in our seeking of virtuous science, inspiring faith, and encouraging words of wisdom. May such unifying good work be illuminating to the majesty of life for the glory of God.

SAGI THEOCENTRIC EDUCATION — GLORY TO THE INIMITABLE DESIGNER OF LIFE

SAGI will cultivate relationships with existing and emerging organizations that share an inspiration for a theocentric education that strengthens learning with a deeper understanding of virtuous science and inspiring faith. This SAGI initiative is entitled “*Inimitable Designer of Life*”.

SPECIAL ACKNOWLEDGEMENTS

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We appreciate several organizations that will be linked to our SAGI website in the future as part of our *Endeavor Together* and *Inimitable Designer of Life* initiatives to unify all who engage in good work for the glory of God. We thank Maestro Therapeutics for its support.

We are also very grateful for the prayers of support from the Monks of the Holy Protection Monastery, the Saint Benedict Center, the Saint John the Evangelist Parish, the Fraternal Society of Saint John the Apostle, and many other religious organizations and individuals.



Special Feature (SAGI Torchbearers)

SAGI: The Greatest Experiment

MY ODYSSEY TO KNOW THE INIMITABLE DESIGNER OF LIFE: TESTIMONY OF A SCHOLAR, SCIENTIST & SAGI TORCHBEARER

Tomi Sawyer, Ph.D.

SAGI Founding President & Chief Torchbearer

Words of Wisdom: As a child, I dreamed of being Superman. As a teenager, I strove to be an intellectual force like Spock from Star Trek. During these years, my faith in God was kindled. Studying the natural biological sciences provides a phenomenal opportunity to realize God as the Inimitable Designer of Life. In this article, I share a few thoughts on my odyssey and reflections upon virtuous science, inspiring faith, and seeking wisdom. May our Lord's words "You will know the Truth, and the Truth shall set you free." (John 8:32) encourage us to become scholars, scientists, and SAGI Torchbearers seeking knowledge, reverence, and truth.

YOUTHFUL DREAMS AND AMBITION TO BECOME A SCHOLAR

I grew up in a small town named Greenbush, in rural northern Minnesota after my parents sought a good place to live after World War II ended. My grandfather, Albert, invited them to reside with him on his 40-acre retirement farm. He had cattle, sheep, and chickens, and there were always plenty of daily chores. Fortunately, I had the opportunity to learn many things from my grandfather, as the day he passed away marked the beginning of new responsibilities for me as a young farm kid. Nevertheless, being outdoors and exploring what seemed like a vast wilderness around our home coupled well with a strong imagination to escape the daily routine.

During these early years my parents allowed me to buy comic books, and my all-time favorite was *Superman*. I was fascinated by this superhero. I often had dreams of flying and having his powers and fearlessness. I still remember those vivid dreams of flying, feeling the wind on my face as I cruised through the skies. Yet, my days of being like Superman would soon be surpassed by my first spiritual encounter with God, and this would become a profound recollection for me.

As a newbie teenager, I was mesmerized by the television series *Star Trek*, and I imagined being on the Starship Enterprise to "Boldly go where no man has gone before!" Spock was the super-scientific character who had profound knowledge with undaunted logic that was seemingly invincible. I wished to be like Spock, which meant taking my education to a new level. This was the start of my own trek to become a scholar. Chemistry, biology, and physics were especially intriguing to me during my high school years, and I further pursued these scientific disciplines throughout my undergraduate studies at Minnesota State University Moorhead and graduate studies at the University of Arizona, ultimately earning a doctorate degree. Although at times this was an exhausting scholarly marathon, it was a pivotal part of my odyssey.

FIRST ADVENTURE IN DRUG DISCOVERY AS A GRADUATE STUDENT

I was blessed to have an extraordinary experience in my graduate studies at the University of Arizona. Significant credit goes to being co-mentored by two very gifted academic scientists who were each on their paths to being world renowned for their contributions in chemistry and biology. They encouraged the collective research team to deeply think about the science being explored. This multidisciplinary collaboration focused on α -melanocyte stimulating hormone (α -MSH, a peptide involved with pigmentation) and was appropriately dubbed the " α -MSH Project." Our work evolved in remarkable ways, including a breakthrough medicine for those afflicted with erythropoietic protoporphyria (EPP). In retrospect, the chemical synthesis of peptides was emerging quickly from 1970-1980, and it was an exciting time in both academia and industry (biotech and pharma) to create peptide drugs for many different therapeutic indications. In my first series of α -MSH analogs, NDP-MSH¹ was designed, synthesized, tested, and became a worldwide research tool, as well as an FDA approved drug, for the treatment of EPP and other skin pigmentary diseases. In fact, a documentary² entitled "*Out of the Shadows*" was shown by *NBC Dateline* in June 2015 to bring attention to children suffering with EPP and to educate the audience about NDP-MSH (aka Afamelanotide or Scenesse[®] by Clinuvel)³. In a second series of α -MSH analogs, cyclic-MSH⁴ was designed, synthesized, tested, and propelled our University of Arizona team into worldwide fame by successfully transforming a linear peptide (α -MSH) into a cyclic peptide (cyclic-MSH) with strong physiological activity (a super agonist). This discovery provided a conceptual framework to show how a peptide interacts with its cellular receptors (for α -MSH it was the melanocortin-1 receptor [MC1R]). Amazingly, forty years later, the first high-resolution 3D structures^{5,6} of α -MSH, afamelanotide, and Setmelanotide (an analog of the original cyclic-MSH) would confirm our conceptualizations of the 3-D binding of α -MSH and cyclic MSH super agonist to the MC1R. I have recently reflected upon this story in a special tribute⁷ to Professor Victor Hruby and both past and current MSH Project Team members. I now see this first chapter of my odyssey as a gift from God. I was guided to a scholarly oasis where I did face many obstacles, but ultimately shared with my colleagues a great triumph in science.

MORE ADVENTURES IN DRUG DISCOVERY AS A PHARMA & BIOTECH SCIENTIST

In late 1981, I took my first steps as a professional, industry scientist to join the fledgling Biotechnology Division of the Upjohn Company (Kalamazoo, Michigan). There also, my life became more balanced with marriage and fatherhood (of two sons). I converted to Catholicism and contemplated on the spirituality of being a drug discovery scientist. I was engaged in several major R&D campaigns including the first *Science* publication⁸ of a synthetic HIV protease inhibitor (U-81749) that was also announced by Tom Brokaw (*NBC Nightly News*) in 1990 as a major drug for the treatment of HIV. This was a first among many reports on HIV protease inhibitors from both pharma and biotech companies worldwide in what evolved into a race to the clinic and development of FDA-approved HIV drugs.

In mid 1991, I accepted my first management position at Parke-Davis Pharmaceutical Research (Ann Arbor, Michigan) and a concurrent appointment as an adjunct professor of medicinal chemistry at the University of Michigan. I had a talented team of computational and synthetic chemists who discovered novel, peptidomimetics^{9,10} as breakthrough inhibitors of HIV protease and Src homology-2 domains (an emerging class of intracellular targets involved in signal transduction). It was during this time that my wife, sons, and my father (who was 79 years old at the time) were able to listen to me speak as a Parke-Davis Distinguished Lecturer by the invitation of Pedro Cuatrecasas, President of the Pharmaceutical Research Division. It was a very special honor to share this with both my family and scientist friends.

In late 1997, I accepted a position of Director of Drug Discovery, at Ariad Pharma (a biotech that was acquired by Takeda Pharma a few years ago). I was initially hesitant to move from large pharma to a biotech that was <1% the size, however I quickly learned that I joined a team of highly skilled, motivated, and scholarly individuals wanting to succeed in drug discovery. Among them, we had outstanding synthetic chemists, computational chemists, structural biologists, and pharmacologists. We achieved a series of drug discovery breakthroughs¹¹⁻¹⁴ on key intracellular targets, including Src kinase for osteoporosis and Bcr-Abl kinase for chronic myelogenous leukemia (CML). In the latter case, the first inhibitor of all-clinical-mutant versions of Bcr-Abl kinase, AP24543 (ponatinib, Iclusig®) was discovered and was FDA-approved for CML therapy. Our work also evolved synthetic chemistry for specific phosphorus moieties as key design features for two FDA-approved drugs, Ridaforolimus (EluNIR® Ridaforolimu Eluting Coronary Stent System) and Brigatinib (Alunbrig®). In retrospect, Ariad Pharma was my most successful adventure in drug discovery in terms of novel design, chemistry, and producing three FDA-approved, marketed drugs. During my time at Ariad Pharma, I was promoted (Vice-President and then Senior Vice-President of Drug Discovery) by management, as were my colleagues, in recognition for our accomplishments.

In late 2007, I accepted a position as Chief Scientific Officer at a start-up biotech, Aileron Therapeutics, as one of the first employees. This was a unique experience for me in terms of building a team from scratch, establishing research operations, brainstorming science and technology platforms, and engaging corporate and business development along with the rest of the leadership team. Most of this experience was fun and exciting as we created a first-time R&D platform to advance a new scaffold of macrocyclic, α -helical peptides for several therapeutic targets, especially intracellular transcription factor for cancer pathogenesis. Of these, the design of novel modulators of oncogene p53 was our greatest achievement and this included both a key preclinical lead molecule (ATSP-7041)¹⁵ and a clinical candidate, Sulanemadlin (ALRN-6924),¹⁶ which was the first-in-class for this macrocyclic peptide modality. Amazingly, the timing for the early days of Aileron Therapeutics was besieged by the economic doom and gloom of the so-called Great Recession (the most severe financial crisis since the Great Depression) of 2007-2008 in America. However, Aileron Therapeutics provided one of the very first big wins for biotech in 2010 as the result of a \$1.1B deal with Roche Pharma to leverage its technology platform for key therapeutic targets, including the p53 project. This collaboration benefitted from the expertise of the Roche scientists who were world leaders in p53 targeted drug discovery. As ALRN-6924 advanced to become a clinical candidate, a decision was made in 2013 to focus on drug development and an initial public offering (IPO). Indeed, in 2017 Aileron was listed on the NASDAQ (ticker symbol "ALRN").

In mid 2014, I began my last drug discovery campaign experience within my "classic" pharma/biotech career by accepting an offer from Merck as a Distinguished Scientist and a 5-year mission to rebuild its peptide drug discovery platforms and pipeline. Although this seemed a daunting task, I was quite enthusiastic to do it. I established the Merck Peptide Drug Hunter Network of more than 100 multidisciplinary scientists as well as many internal and external working relationships. Two key collaborations were with PeptiDream (Japan) and A*STAR (Singapore), and they greatly supported Merck's intracellularly targeted peptide drug discovery. This work included a basic science and technology effort on p53 to exploit the milestone accomplishments of Aileron Therapeutics to advance a deeper-dive into the design, chemistry, biology, cell permeability, and metabolic stability of macrocyclic α -helical peptides. Overall, this was my most successful adventure in drug discovery as a pharma scientist, and it also included many top tier scientific publications.¹⁷⁻²²

On my last day at Merck, which was also my 65th birthday, I reflected upon my career in drug discovery as well as "retirement" plans with my Merck friends. In retrospect, it was intriguing that my first professional scientist job offer was from Merck (1981), and thirty-three years later (2014) I would join the Merck global R&D scientific team. My future goals included: (i) for my family, to establish a scientific consulting/advisory business "Maestro Therapeutics"; (ii) for my friends, to establish a global peptide drug hunter network "Peptide Drug Hunting Consortium"; and (iii) for my faith, to establish the "Saint Albert the Great Institute (SAGI) for Science, Faith & Wisdom". These were inspirational goals for me to launch a new 5-year mission to be a multidisciplinary entrepreneur via Maestro Therapeutics, and then to pursue launching the Peptide Drug Hunting Consortium and the Saint Albert the Great Institute for Science, Faith & Wisdom.

PURSUIT OF VIRTUOUS SCIENCE AS A MULTIDISCIPLINARY ENTREPRENEUR

This year will mark the 5th anniversary since I founded Maestro Therapeutics. Its inaugural mission was empowering drug discovery to support the cause for early- and mid-staged biotechs relative to their drug discovery platforms and R&D pipelines to advance compelling peptide therapeutic modalities into the clinic. Overall, Maestro Therapeutics has contributed by both scientific R&D consulting and advocating financial investment (venture capital) or R&D partnering (pharma) for many biotechs in its business portfolio. Over the last two years, Maestro Therapeutics has engaged my two sons who have each recently achieved their Ph.D. degrees in chemistry/biochemistry and cellular/molecular biology. Together, we are multidisciplinary entrepreneurs who are supporting the development of peptide therapeutic modalities that may ultimately become breakthrough medicines for those who suffer with life-threatening and/or debilitating disease. Recently, and with many outstanding entrepreneurs from academia, biotech, pharma, investors, contract R&D organizations and service providers, I've launched the Peptide Drug Hunting Consortium. It is with hope of exploiting our collective talents that we may fortify the science/business interface of peptide drug discovery and future breakthrough medicines.

One point I wish to share is that from a chemistry and biology perspective, molecules may be designed and synthesized for a specific target (e.g., receptor, enzyme) to modulate its function, but they often have unexpected negative effects (generally referred to as 'off-target' and 'toxic'). This is part of the challenge of drug discovery, and those molecules which have toxicity are generally eliminated from further development, albeit they are still important to guide the optimization of the class (or series) of molecules from which they may be chemically/structurally related. While drug discovery is challenging and typically requires a great deal of time and money, it is very rewarding to match a new medicine to an unmet need, especially for all those engaged in the multidisciplinary scientific effort.

These days, knowledge is abounding for those pursuing virtuous science, especially in technology and medicine. One must strive to be scholarly and be intellectually driven to review the scientific literature and understand the purpose, methods, and shared learnings from such work. Beyond this knowledge, one must strive for reverence and truth as it relates to the science of life. In fact, all scientific inquiry that permeates the biology of life should adopt principles of bioethics and seek virtue for the common good as well as embracing theological and philosophical discernment. Life is precious, and the pursuit of virtuous science is both propitious and daunting. Yet, many other things in the history of humanity have been very challenging, but the focus must remain on what is good for the glory of God. Indeed, this is yet a great intention for ardent prayers and genuine desire to do good work in all aspects of life.

TO KNOW THE INIMITABLE DESIGNER OF LIFE AS A SAGI TORCHBEARER

Contrary to those who may surmise that all scientists are indifferent to believing in God, this notion is neither realistic nor logical. Many scientists representing various disciplines throughout history lived as devout believers in God, including Saint Albert the Great.²³⁻³² Most importantly, there isn't any scientific evidence or experimental works that demonstrate the creation of life, even in its simplest living form, from inanimate materials. This remains true even considering that our current technologies include the most sophisticated chemical reagents and research laboratories, surpassing the volatile conditions of primordial Earth. I am not saying the creation of life is impossible, but rather that the creation of life is only possible by a Being of Inimitable attributes and qualities (e.g., infinite, omnipotent, immutable, omnipresent, perfect), a Designer of Life, namely God. In what sense is God inimitable? Only God can create organisms and sustain their life principles *ex nihilo* (out of nothing), whereas human beings can only make things (from pre-existing materials). "Inimitable Designer" refers, in glorifying acknowledgement, to God as the Greatest Scientist.

For scientists, I hope this is a humble testimony and revelation to reflect on God's power in the creation of life. Furthermore, this is an opportunity for all who share in faith to behold God the Creator with love and gratitude. Indubitably, I now appreciate more the intricacies of life from a scientific perspective and how extraordinarily complex life is. Specifically, I'm referring to how highly-orchestrated the engine of life is, especially considering the integration of all the underlying chemistry, biology, and physics. Not only are its constituents (e.g., nucleic acids, proteins, lipids, carbohydrates, water, and other organic and inorganic molecules) complex, but also the exquisite specificity of biological processes in spatial and temporal ways. Furthermore, we know that life exemplifies such properties in replication and development. Importantly, please know that my thoughts here are not a revelation from of my being a scientist; rather, being a scientist has affirmed my faith in the Inimitable Designer of Life, and the mystery of the Creation of Life.

My odyssey has been at the crossroads of being a scholar and scientist and is now leading me on a spiritual path as a SAGI Torchbearer. Seven words have resonated in my memory throughout the last six decades – faith, hope, love, mercy, truth, wisdom, and life. Likewise, our Lord's words, "you will know the Truth, and the Truth shall set you free" (John 8:32) have greatly impacted my trek in life and call to be a SAGI Torchbearer seeking knowledge, reverence, and truth. I hope that my testimony to know God as the Inimitable Designer of Life may be inspiring for those reading this article. Such will be a cornerstone of SAGI's initiative to support theocentric education. Lastly, may SAGI's motto of "Illuminating Life" be tantamount to a unifying force for our networking initiative (Endeavor Together) as well as our chronicle (SAGI: *The Greatest Experiment*) and website (<https://saintalbertthegreatinstitute.org>).

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I wish to especially thank my family and SAGI friends for their support and encouragement to launch the Saint Albert the Great Institute for Science, Faith & Wisdom.

I wish to acknowledge my scientific mentors, colleagues, and friends that I have had the privilege to work with for more than 40 years from the time of my first day as a graduate student to the last day as a biotech and pharma scientist. These were truly great adventures in drug discovery, and I was blessed with having had such opportunities to endeavor together.

I look forward to a great adventure with all SAGI Torchbearers worldwide for "illuminating life" and to share in good works for virtuous science, inspiring faith, and seeking wisdom!

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Special Feature (Theocentric Education)

SAGI: The Greatest Experiment

He Leadeth Me

Anne Holewa*

*SAGI Torchbearer

Words of Wisdom: "Remember that nothing is small in the eyes of God. Do all that you do with love." These words of wisdom were written by St. Therese of Lisieux, a Carmelite nun, who was declared a Doctor of the Church by Pope John Paul II in 1997. In her everyday life, even the most mundane tasks in her cloister were performed with great humility and love. No matter where we live, what our mission in life is, or who is with us, we are called to live each and every day as holy servants of God. As St. Therese also stated, "Holiness consists simply in doing God's will, and being just what God wants us to be." As a wife, mother, and teacher, I strive to live her words of wisdom every day. During my years as a teacher, my desire was to give students, no matter their academic ability, the means of being successful in their learning; most importantly, I wanted them to know that they were as God made them to be...valuable and precious. Not a day goes by during which I do not think, remember, or reflect on the many students I was privileged to have throughout my thirty-five years of teaching. It was my delight to watch my St. Mary students as they learned, worked together as partners, laughed together, watched and sang to *Fiddler on the Roof*, read and watched the video of *To Kill a Mockingbird*, recited poetry, and, lastly, as they performed Shakespeare's *The Comedy of Errors*.

THE BEGINNING OF MY PASSION FOR TEACHING

I now know that God had plans for what would become my mission in life, plans that began to form while I was still very young. I did not, of course, understand the beginning steps toward His plans at that time, but He, in His wisdom and compassion, was laying the foundation for what I was gifted to later become. Despite all the trials and difficulties which I faced during my younger years, His grace and great love led me to the thirty-five years I would devote to my teaching career.

As the second oldest of ten siblings, I experienced and learned much about childcare from taking care of younger brothers and sisters, from their infancy and through their younger years. These years of caretaking laid the foundation for my God-given desire to work with children. My first, solid indication of my calling to teach came while I was in high school. A substitute teacher for catechism at my home parish was needed for a few weeks, and I believe it was my mother who volunteered me to help.

Working with kindergartners sparked a love and desire in me for teaching. I remember giving special attention to a boy who remained at a distance during my first class. During the next few weeks, I encouraged and helped him to engage and believe in the importance of

His presence in class. That first teaching experience is forever engraved on my heart. As I was told later by my mother, this shy, little boy told his mother that he liked being there even more than in his kindergarten class during the school week. This first experience, and those to come, of helping students to realize their value and worth would become my greatest joy.

EDUCATION INSPIRED BY FAITH AND LOVE

When I began college, it was with the intention of earning a degree in Education. I did not have to discern or discover what my career path would be; God placed me there, exactly where I was meant to be. Before earning my degree, I spent two years working as a teaching aide in a middle school, learning-disabled classroom. What I did not know at the time was that this experience would later be of great help to me as a full-time teacher. It inspired me to give students, no matter their academic ability, the means of being successful in their learning, and, most importantly, to show them that they were as God made them to be — valuable and precious.

In April 1982, I graduated with a degree as an English major, with a minor in Elementary Education. Over the next thirty-five years, I was first a public-school, substitute teacher. I was then blessed to be hired as a full-time Catholic, middle school teacher. Within a short time, I knew this was where God wanted me to be. During my nineteen-and-a-half years at St. Mary Catholic School, Christ was the center of everything. With God's grace, I grew and developed skills that would help instill in my students the means and desire to learn and grow, not only in academic abilities but also in study habits, organization and time-management skills, social interactions, and, most importantly, faith in God.

Over the course of those years, I made many adaptations to help students with individual learning needs be successful, while simultaneously helping them also accept who God made them to be. I held high expectations for all students, encouraging them to complete assignments, to develop and practice good study habits, and to treat each other with respect and compassion. Within a few short years, Language Arts became my passion. I wanted to foster within my students a love for reading and skills to become proficient writers. There have been many moments in which the inspiration of the Holy Spirit has enlightened me and led me; for instance, three years into teaching at St. Mary, I suddenly knew that my approach to writing needed to change.

It was especially important to me that my middle school students go onto high school, and later college, with the ability to write well. For this to be attained, my approach to Language Arts had to become more comprehensive. Rather than teaching grammar, spelling, vocabulary, sentence structure, composition, editing and rewrites, and literature in isolation, I developed a methodology that would integrate all of these things on a daily basis. Starting with sentence composition, we then moved onto note-taking methods, then paragraphs, short compositions, formal letters to their bishop, essays, formal book reports, quarterly history projects, quarterly vocabulary tests, and, eventually, to scientific research papers. Students practiced weekly and mastered grammar rules, the understanding of vocabulary in its various parts of speech and denotative and connotative meanings, and sentence structures with necessary punctuation in all their written work. To enhance the academic abilities of all my students, their daily practice was discussed and completed with partners or small groups. What a blessing it was to see and hear the humor, laughter, and creativity that abounded as students worked together and had fun with it all! After my beloved St. Mary Catholic School closed in 2004, I was blessed to teach Language Arts to middle school students for two years at another Catholic school. Instead of a class of fifteen students, I then led six Language Art classes of 120 students!

"ONCE A TEACHER, ALWAYS A TEACHER"

Three years after I retired in 2006 from full-time teaching, my role as a Language Arts teacher resumed. My brother and sister-in-law needed me to tutor my nephew in developing his writing skills. This began seven delightful years of working with Catholic, home-schooled students, using my same Language Arts approach. Over the course of those years, I helped students from early elementary throughout high school. During my last three years as a tutor, I traveled five days a week and worked with six different families.

When my husband and I moved to the Upper Peninsula of Michigan in 2017, I once again considered myself retired. Little did I know that Divine Providence had brought us to the Upper Peninsula that particular year. Here, too, God had plans for me; within just a few short months, I would learn that my teaching career would continue. Two of my nephews, who were struggling with high school, wanted to quit their studies. I spent the next three years tutoring and assisting them until their graduation in 2020.

"Once a teacher, always a teacher!" In small ways (thank you, St. Therese), I continue to use the gift of teaching given to me by God. Whether it is while substituting for catechism classes, or when grandchildren come to visit, or when friends want to learn new crafts, the teacher within me is there, ready to help. I sincerely believe that I would not be the person I am today without His presence in me. Yes, He leadeth me, and I am forever grateful for such a blessing.

A SPECIAL MESSAGE

To all my home-schooled students and their families: Working with you each week was, for me, the highlight and joy of countless days. I was greatly blessed by your kindness and warmth. We had much to cover each week, and you worked very diligently. I think of each of you often and look forward to the times we meet. May God love and bless all of you — always.



Special Feature (Theocentric Education)

SAGI: The Greatest Experiment

The Value of a Theocentric Education

Sister Jordan Thomas, O.P.*

*SAGI Torchbearer

Words of Wisdom: "Souls are perishing in the ever-shifting sands of the relative; it is the absolute they need. Nowhere will they find it but in the Gospel entrusted by Jesus Christ to His Church, which has preserved, taught, and expounded it. It has been exemplified in the lives of the best of her children" (Fr. Réginald Garrigou-Lagrange, O.P., Providence, Foreword, vii-viii). As Fr. Garrigou-Lagrange says, objective truth is desperately needed in society, for relativism has been gaining ground for centuries, manifesting itself most especially in what Pope Saint Pius X termed "the synthesis of all heresies": Modernism. Even a cursory glance at the state of affairs in the world will quickly inform one that relativism, among other things, is bringing about the dissolution of society. God's Love for man, however, is an objective truth, and His Love is exemplified especially in Christ's Life and Passion. Furthermore, as individual souls embrace the truth of Christ, darkness becomes increasingly displaced by light. However, "education" that is divorced from objective truth necessarily bears its consequences on the soul and then in the world. On the contrary, theocentric education places the soul in contact with timeless, universal truths, presented in the light of man's First Beginning and Last End.

A HOMESCHOOL ODYSSEY THAT WOULD CHANGE ME FOREVER

My classmates were saying goodbye to me as I stood in front of them for the last time, and my teacher asked me if my parents were sending me to a different school. I replied, "No, I am going to be homeschooled." This is the last thing I remember about my third grade in public school. The odyssey upon which my brother and I would be embarking at the behest of my parents would be one that would change me forever: my fifth-grade brother and I were soon-to-be students of a prominent Catholic homeschool program.

Not only did I suddenly feel more independent, but I also remember being grateful that religious studies became a normal part of my school day at home. Though I could not put it into words at my very young age, reflecting now upon my homeschool's theocentric curriculum, I recall that as I matured, I came to understand that such a curriculum directs every aspect of study to its Final End, which is God. In the words of God Himself, "I am Alpha and Omega, the First and the Last, the Beginning and the End" (Apoc. 22:13). Venerable Louis of Granada, O.P., in his famous work, *The Sinner's Guide*, says, "Now, what is man's last end, on the attainment of which depends his happiness? That it is God is undeniable; for since He is our first beginning, He must necessarily be our last end" (Chapter 28).

The riches of such a homeschool curriculum include one's increasing familiarity with Sacred Scripture as well as the timeless doctrinal and moral teachings of the Church; further, the focus of all the subjects in the curriculum is such that it is ultimately directed to one's better knowing, loving, and serving God. More specifically, the history I learned was much more than a simple collection of names and dates *sans* context; rather, it was an unbiased and meaningful relation of important events and how they all tied into salvation history and God's work in man. The literature was comprised of primary texts from the great writers, spanning centuries, which illustrate themes relevant to mankind's condition throughout the ages. The language component that I chose to study was Latin, which would eventually allow me access to many theological works that have not yet been translated. Other subject areas were equally meaningful and necessary for a well-rounded Catholic education.

A CATHOLIC AND RELIGIOUS LIFE IN THE DOMINICAN ORDER

Being immersed at a young age in such a comprehensive and theocentric education, which continued until my graduation from high school, played a significant part in forming a solid foundation for me as a Catholic; moreover, it was instrumental in leading me to pursue a life which is particularly theocentric—the religious life in the Dominican Order.

The Order of Preachers, also known as the Dominican Order, was founded by St. Dominic in the early thirteenth century to combat the heresy known as Albigensianism. St. Dominic worked to form a group of Friars Preachers devoted to prayer, study, and preaching to further bring light and truth into the world for the salvation of souls. The motto of the Dominican Order is *Veritas* (Truth). Such a motto expresses the devotion of Dominicans to the pursuit of truth in all things. One of the most famous Dominicans is St. Thomas Aquinas, who composed history's greatest theological synthesis, the extensive *Summa Theologiae*.

As a Dominican, I am grateful for having received in my early years a solid education upon which I continue to build, for what I received enriches my life of prayer and assists me in my theological studies. I am grateful to my parents for having made the decision to homeschool my brother and me because, in addition to our studies being very academically demanding, God, more importantly, was the center of our education.

A SPECIAL MESSAGE

Youth everywhere need guidance — not merely guidance in intellectual pursuits without a view to education's Final End, but, rather, one which forms the whole person: a guidance directed towards the Creator, to Whose beauty and majesty all creation testifies. When we begin to see that education is much more than mere academics, and additionally should be pursued for the greater glory of God, then we will also begin to see it for its true worth.
