INTRODUCTION

The American Society of Human Genetics, Inc. (ASHG) is a nonprofit 501(c) 3 corporation. Because the ASHG does not pay tax on its investment earnings, the portfolio manager should not pursue investments strategies whose objectives are tax planning or deferral.

ASHG’s Board of Directors has established this Investment and Reserve Policy to govern the management of the society’s reserve fund, primarily consisting of long-, short-, and mid-term investments. Accordingly, the standards outlined in this Investment and Reserve Policy are designed to provide guidance on the structure, investment amounts, and management of the reserve fund and its investments.

LONG-TERM INVESTMENTS

OBJECTIVES AND OVERVIEW

The overall objective of the long-term investment fund is to provide a reserve to be used for purposes other than regular operations and during times of unanticipated business need. The long-term investment objectives are as follows:

1. Capital Preservation is the primary objective of the fund. However, the fund does seek to increase the value of its investments in real terms to build future reserves.

2. The fund managers should give equal consideration to the portfolio’s expected return and to standard deviation or risk.

3. The effects of market risk should be mitigated by investing in a diverse and balanced portfolio.

4. Investment transaction fees and management fees should be as low as possible.

The general long-term investment guidelines are based upon a probable investment horizon of greater than 5 years, and interim fluctuations should be viewed with appropriate perspective. However, because we cannot predict long-term future business needs with certainty, the fund manager must also realize that the possible time horizon may be fewer than 5 years.
RISK

Risk shall be evaluated in terms of the total portfolio, not each individual investment. Accordingly, the portfolio should be well diversified to avoid undue exposure to any single economic sector, industry group, or individual security.

Because the long-term investment holdings shall consist of investments that are subject to market fluctuations, we realize that market risk is unavoidable and can be only partially mitigated through portfolio diversification. The ASHG realizes that to provide a rate of return greater than the risk-free rate, some fluctuations in market value are inevitable. However, these market fluctuations should be limited to prudent levels through high-quality investment holdings and portfolio diversification.

LONG-TERM INVESTMENT GUIDELINES

Subject to the following guidelines, the investment manager shall have full discretion in investment decisions.

A. Asset Allocation Guidelines

<table>
<thead>
<tr>
<th>TYPE</th>
<th>APPROVED</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Cash Equivalents</td>
<td>0% - 10%</td>
<td>0%</td>
</tr>
<tr>
<td>Fixed Income Securities</td>
<td>30% - 50%</td>
<td>45%</td>
</tr>
<tr>
<td>Equity Securities</td>
<td>30% - 50%</td>
<td>45%</td>
</tr>
<tr>
<td>Real Estate Investment Trusts, Real Estate Mutual Funds, Master</td>
<td>0% - 10%</td>
<td>10%</td>
</tr>
<tr>
<td>Limited Partnerships, or Similar Investments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Cash Equivalent Guidelines:

The cash portion of the Long-Term Fund may be invested in U.S. Treasury Obligations, Commercial Paper, Certificates of Deposit, or other money-market instruments (rated A-1/P-1 by Moody’s or by Standard and Poor’s), and money-market funds. No issue shall constitute more than 5 percent of the total value of the Fund.

REBALANCING

The intent of rebalancing the portfolio is to maintain allocations that are consistent with the asset allocation detailed herein. The portfolio shall be rebalanced when the maximum or minimum ranges
are exceeded. The extent of rebalancing required shall be at the discretion of the investment manager, within the approved asset allocation guidelines. In addition, rebalancing likely will be necessary upon the receipt of new funds to the portfolio or upon transfer of funds from the portfolio.

RESTRICTIONS & LIMITATIONS

1. Restricted Transactions: All investments must have a readily ascertainable market value, and must be readily marketable. The investment manager will not engage in transactions involving:
   - Commodities,
   - Restricted Stock,
   - Foreign Equities not traded on the New York Stock Exchange, either directly or as American Depositary Receipts (except purchased through a mutual fund),
   - Private Placements (except marketable 144(a) securities and the investment manager's commingled investment vehicles),
   - Warrants,
   - Securities Purchased on Margin or short-selling individual securities, and
   - Venture Capital.

Long-Short Equity Mutual Funds are allowed only when the strategy is used to reduce overall portfolio risk.

2. Equities: Common and convertible preferred stocks should be listed on a major U.S. stock exchange or traded in the over-the-counter market with the requirement that such stocks have adequate market liquidity relative to the size of the investment. Equities should consist of a mix of small-caps, mid-caps, and large-caps. Mutual fund investments are acceptable.

3. Fixed Income: Purchases of individual fixed income securities shall be predominately limited to obligations issued or guaranteed by the United States or Canadian governments or any agencies or instrumentalities thereof or to debt issues rated in one of the top four quality grades as established by one or more of the nationally recognized bond rating services. Yankee bonds may be used. At least 85% of the bond funds held should be investment grade. High yield bond funds are allowable up to 15% of the total bond portfolio.

4. Maturity: The average maturity and duration of the portfolio will be consistent with the Barclays Aggregate Benchmark or comparable benchmark within 10%. In determining average maturity and duration, mortgage pass-through, asset-backed, putable and other similar variable maturity securities will be measured based upon their estimated effective maturity and duration.

5. Concentration by Issuer: Investment in any one issuer shall be limited to 5% of total portfolio assets and/or 5% of the issuer's outstanding shares at the time of purchase. Securities issued or guaranteed by the U.S. Government, its agencies or instrumentalities are not subject to this limitation.

6. Real Estate Investment Trust investments must be publicly traded and relatively liquid investments. Investments in Real Estate Investment Trusts must consist of less than 20% concentration in any regional market. Real Estate Investment Trusts may be used as a means to achieve greater portfolio diversification and to reduce overall portfolio risk. Real estate mutual funds are an acceptable means of exposure to real estate.
PERFORMANCE EVALUATION

The investment manager will report on the performance investments quarterly. This report will be distributed to ASHG’s Executive Vice President and the Treasurer and will include the portfolio's total return, as well as performance of the separate asset classes that constitute the portfolio.

Actual performance is to be evaluated compared to all relevant benchmarks. Moving 5-year periods will be used to determine whether the portfolio's objectives are being met. However, to aid in the evaluation of portfolio trends, standard periods for evaluation are to include quarterly, year-to-date, 1-year, 3-year and 5-year periods. If there is a negative 1% or more difference between annual benchmark performance and actual performance, the portfolio manager will be required to report the reason for the deviation to the finance committee and/or board.

The equity portion of the portfolio will be measured against those indices that most closely reflect the particular segment to be measured. Appropriate indices to be used include the DJ US Total Stock Market Index, MSCI US Broad Market Index, S&P 500 Index, Russell 2000, or another comparable index that closely reflects the particular segment to be measured. The fixed income portion of the portfolio will be measured against the Barclays US Aggregate Bond Index. The entire fund should be measured against a balanced benchmark weighted 50% MSCI US Broad Market Index and 50% Barclays Capital U.S. Aggregate Bond Index.

AMOUNT OF LONG-TERM INVESTMENT

When determining the amount of long-term investment needed for business purposes, two factors will be central:

1. adequacy of short- and mid-term investments, and whether these investments are at the target levels stated within this policy, and
2. the potential obligation that would result from unexpected large losses caused by interruption or cessation of business operations.

Adequacy of short- and mid-term investment amounts will be given first priority before considering any investment in the long-term portfolio. Assigning a higher priority to the short-term assets is necessary because it is those investments that are reserved to meet current obligations and sustain budgeted activity.

The long-term investment account is generally held for obligations that are unexpected and infrequent. Long-term investments are primarily held for self-insurance and liabilities that may occur, as in the case of a catastrophic event such as the cessation of journal operations, cancellation of the annual meeting, or a large lawsuit. Although those events are unlikely, it is good business practice to ensure that the organization will remain solvent if faced with such unexpected challenges.
OPERATING RESERVE (SHORT-TERM AND MID-TERM INVESTMENT) GUIDELINES

OBJECTIVES AND OVERVIEW

The society’s policies generally preclude the use of the long-term investment portfolio for operating expenses; to do so would require unusual circumstances and a quorum vote of the Board of Directors as defined in the bylaws. For this reason, it is necessary to provide an operating reserve fund that is adequate, liquid, and discretionary.

The investment funds designated for operational use are divided into two categories: short-term operating investments and mid-term operating investments. Both funds are held to meet anticipated operational expenses presented in the society’s annual budgets.

Short-term investments of the society are designated to meet current budget obligations and will have a maturity value of one year or less. The level of short-term investment the society should maintain is dependent on anticipated future needs and is cyclical in nature. The current cash cycle of the society receives the majority of cash in the third and fourth quarters of any calendar year in the form of dues and meeting revenues, producing leaner periods of cash received for the six months of the year spanning February through July. Because of this lean six-month period, it is society policy to keep available at least six months of short-term assets that consist of cash and cash equivalents.

In addition to the short-term operating investments, the society will maintain a portfolio of mid-term investments for operations in future years. The mid-term investments will be held with the expectation of producing greater interest income than the short-term investments, while being held as a potential source of operational funds. The primary objective for the mid-term funds shall be consistent with that of the short-term funds (preservation of principal), and the investment maturity will range from 2 to 5 years.

RISK

The operating reserve shall consist of investments that collectively result in low variability of returns and essentially zero chance of significant loss of principal. Although we desire investment income, preservation of capital is the primary management goal for both the short-term and mid-term investment portfolio.

Both the short-term and mid-term investments shall be managed with a combined maturity that spans a 0-5 year horizon. We expect that investments with the longest time horizon may have some price fluctuation. However, if such investments are laddered, there will be effectively zero chance of capital loss if such investments are held to maturity. If these investments are held to maturity, any fluctuations in price will be a paper loss, because upon maturity the investments will be worth their face value. Accordingly, we expect that the entire portfolio will be managed using a laddered strategy in which investments are held to maturity, resulting in a combined portfolio with little or no realized loss of principal.
GUIDELINES FOR THE OPERATING RESERVE

Laddered Short Term Portfolio- Target Investment Level = 6 months of operating expenses

<table>
<thead>
<tr>
<th>Target Investment Maturity</th>
<th>Target Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year or Less</td>
<td>100%</td>
</tr>
</tbody>
</table>

Laddered Mid-Term Portfolio- Target Investment Level = 1 year of operating expenses

<table>
<thead>
<tr>
<th>Target Investment Maturity</th>
<th>Target Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 Years</td>
<td>40%</td>
</tr>
<tr>
<td>5 Years or Less</td>
<td>70%</td>
</tr>
<tr>
<td>7 Years or Less</td>
<td>90%</td>
</tr>
<tr>
<td>10 Years or Less</td>
<td>100%</td>
</tr>
</tbody>
</table>

The maturity and target allocation guidelines shown above for the mid-term investments are not meant to be exact allocations because we realize that allocations may change as investment opportunities arise or as organizational needs change. However, it is desirable that a general laddering structure be used for ASHG’s mid-term investments resulting in aggregate portfolio duration between 2.5 to 4.5 years.

ASHG’s goal is to limit risk on its mid-term portfolio while realizing a return great enough to avoid the portfolio’s devaluation due to inflation. We believe that the laddered investment approach allows us to achieve this goal. Although moderate risk may result from investing in investment grade bonds, the earnings become predictable if the bonds are held to full term. It is our intent that bonds held within the mid-term portfolio be kept until maturity.

RESTRICTIONS & LIMITATIONS

The approved investments for both the short-term and mid-term portfolio shall be limited to the following:

1. U.S. Treasury Bills,
2. U.S. Treasury Notes maturing within 6 years,
3. obligations of U.S. Government Agencies,
4. negotiable Certificates of Deposit and Time Deposits of U.S. banks maturing within 2 years and insured under FDIC,
5. Money Market Mutual Funds,
6. Overnight Sweep Accounts with a U.S. bank insured under FDIC, and

Additionally, the following limitations apply to the Operating Reserve Investments:
1. No more than 10% of the portfolio shall be invested in securities in any one bank.
2. No more than 5% of the portfolio shall be invested in securities issued by any one corporation.
3. No more than 50% of the total portfolio shall be invested in corporate investment grade bonds.
4. The short-term portfolio (maturity of 1 year or less) must be fully funded at a level of 6 months of expenses (currently at 2.5 million) before investing in mid-term investments (maturing between 2-6 years).

ALL INVESTMENTS- SUMMARY OF TARGET AMOUNTS AND TRANSFERRALS BETWEEN ACCOUNTS

The target amount of investment for short-, mid-, and the long-term portfolios shall be 2.5 times annual expenses allocated as follows:

1. cash and short-term investments at 50% of annual expenses,
2. mid-term investments at 100% of annual expenses,
3. long-term investments at 100% of annual expenses.

When determining the amount of investment in short-, mid- and long-term investment, the short- and mid-term targets must be satisfied before any investment in long-term securities will be considered. If the total of all investments reaches an amount in excess of 3 times annual expenses for a period of 1 year, the Finance Committee shall make a recommendation to the board concerning the management of the excess funds, which may be transferred to the long-term account. When making a recommendation to transfer excess funds, the Finance Committee shall consider future budgeted net revenues and strategic initiatives requiring cash outlays.

ASHG RESERVES

Scientific society reserves vary greatly, and there is no optimal amount that can be observed by examining the policies of other scientific societies. It is useful to know that other scientific organizations surveyed have accumulated net reserves, which include long-, mid-, and short-term investments, ranging from 85% to 350% of annual expenses.

The primary guiding principle of accumulating reserves should be based on the business need of an organization. The level of reserve that ASHG would require in the event of business catastrophes such as the cancellation of the annual meeting and cessation of journal operations would be a level equivalent to one year of expenses. The reserve balance for this contingency would require a long-term minimum reserve level of 100% of annual expenses.
In addition to the aforementioned business catastrophe reserve balance of 100% of annual expenses, additional reserves are needed for the ASHG to meet its current obligations, deal with cyclical revenue variability, and negotiate periods of successive net loss years. Cyclical revenue variability alone requires that the equivalent of 6 months’ expenses be kept in reserves because ASHG revenues decrease significantly during the period February through July.

When assessing all facets of ASHG’s business needs, as well as observing the reserve balance of other scientific societies, it is reasonable to set a target reserve ranging between 200% and 300% of annual expenses. It is understood that this is a goal of the society, and there will be periods where the reserve levels will fall outside the desired range. However, in setting long-term financial goals, we should consider the effect that such goals would have on the target range of ASHG’s reserves.

**ALL INVESTMENTS- OVERSIGHT, REPORTING, AND RESPONSIBILITIES**

*Oversight of Long-Term Investments*

Annual performance reports for the long-term investment account will be reviewed by the Finance Committee each year before the spring board meeting. Additionally, an annual summary statement will be presented at the spring board meeting to the Board of Directors by the portfolio manager.

The Finance Committee shall determine whether investments are at a reasonable level, performance benchmarks are being met, and portfolio diversification is within stated limits of the investment policy. If there is a designated action item, the Finance Committee will address that item, and the treasurer will present a recommendation to the Board of Directors.

Because the long-term investments are intended to be used rarely or during times of catastrophe such as the cancellation of the annual meeting or cessation of journal operations, drawdowns of the long-term fund will require a quorum vote of the Board of Directors as defined in the bylaws.

Contributions to the long-term investment account shall be approved by the Finance Committee. The Finance Committee may give the director of finance approval to add funds to the long-term account provided that the society’s operational cash needs are adequate. Once adequacy of short-term and mid-term funds is determined, excess funds may then be transferred to the long-term investment account.

*Oversight of Short-Term and Mid-Term Investments*

Short and mid-term funds are designated for current operations and must be liquid and responsive to meet current budgetary needs. Transfers between short and mid-term investments are a necessary component of normal business operations. It is the duty of the director of finance, in consultation with the executive vice president, to manage and monitor these funds within the limits contained herein.

Additionally, oversight procedures will include review of the investment policy by the executive vice president, treasurer, and director of finance every 3 years when beginning the term of a new treasurer.